THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

ART. I. *Cases of Ichthyosis.* By JOHN W. FRANCIS, M. D. Professor of Obstetrics and Forensic Medicine in Rutgers Medical College, New York, &c. [With a Plate.]

UNDER the denomination of *leprosy* the ancient writers comprehended almost every variety of cutaneous affections; and although some of the Greek physicians limited the term *lepra* to those disorders alone in which a scaly formation appeared, nosological discrimination was thereby little or not at all advanced. The leprosy of the Arabians would seem according to good authority to have embraced the elephantiasis of the Greeks; while, on the other hand, this disease has been transferred by various commentators on the writings of the Arabians, to the well known affection of certain hot climates, called the tumid or Barbadoes leg. Moreover, we have leprosies, white and black, and these again confounded with the enlarged leg, and fish-skin diseases; so that original authors and commentators have grouped together under one head the most distinct maladies, and contemplated as non-congeners, mere modifications of affections virtually one and the same. This want of accuracy in observation, and of precision in language, will be the more evident if we compare the descriptions of the physicians of the middle ages: the most opposite in their nature of the cutaneous disorders were by them confederated as leprosy: a disease of the exterior surface of the body, whether originating from local or constitutional causes; whether sporadic or endemial; whether it invaded the whole frame, or was limited to the smallest member thereof; whether it assumed a scaly or a pustular formation; of a snow, livid, copper, or other colour; of a contagious or non-contagious nature; if it proved obstinate to the usual means of relief was

often readily and unwittingly termed leprous; and thus arose the innumerable and complex variety of complaints for which the sufferers were tortured with unavailing remedies, and often doomed to seclusion from society. The accounts of sacred writers on these peculiar topics are exemplified and illustrated by many of the authors of subsequent, and comparatively of modern times.

Maundrell, who had seen lepers in Palestine, gives us various particulars of the disease among them: their feet were enlarged like those of the elephant, or like horses feet swelled with the farey. When I was in the Holy Land, says he, I saw several that laboured under Gehazis distemper, particularly at Sichem, (now Naplosu,) there were no less than ten came begging to us at one time. "Their touch was held infectious; the distemper was quite different, adds he, from what I saw it in England. It not only defiles the whole surface of the body with a foul scurf, but also deforms the joints of the body, particularly those of the wrists and ancles, making them swell with a gouty scrofulous substance, very loathsome to look on."* Prosper Alpinus tells us it attacks peculiarly the feet. Some again assure us the disorder was marked by three peculiar signs; a bright spot, a rising of the surface, and a scale. The Salernian school not a little added to the obscurity on the subject: the same term was appropriated to different disorders, and elephantiasis sometimes designated a morbid state which had not been noticed even by the Greeks.

Even the poetry of Lucretius,† and the speculations of Mead,‡ may be read as confirmatory of many of these views.

Nor is this confounding together every species of cachectic disease, accompanied with a derangement of cutaneous surface, limited to the writers of the dark and middle ages. A similar obscurity and confusion pervade many of the descriptions of our latest and best authors. Notwithstanding the wide distinctions and pathological principles which ought ever to be kept in the foremost point of view as replete with sound practical precepts, the accounts of the different and multiplied species of derangement consequent upon primary and secondary syphilis; the depredations of its antidote, mercury, induced by the preposterous use of several of its pharmaceutical forms; the sivvins of Scotland and of Canada, the ichthyosis and the northern or Scandinavian leprosy, are each subjects upon which the ingenuous inquirer demands further investigation, and more precise reports, if he expects to arrive at a correct nomenclature.

* Maundrell, Letter to Mr. Osborn, Clark's Bible, also Calmet.

† De Rerum Natura. ‡ Medicina Sacra.

When the imperfect state of the physical sciences in the early ages, and various other circumstances are considered, we are not entitled to wonder at the diversity of appellation that occurs in the history of similar and kindred diseases; and the confusion in which the specific distinctions of numerous disorders are involved. But this indulgence can scarcely be conceded to the eminent writers of our own day, who, while they have enriched medical philosophy with important facts, have nevertheless offered such discrepant and unsatisfactory information on these diseases, that not only the inherent difficulties of the inquiry remain unremoved, but much of the light we formerly enjoyed has become obscured. The systematic arrangements of Willan and Bateman are sufficiently well known, and while the exposition of the former on the subject of leprous diseases might be deemed among the most imperfect portions of his work, and be pronounced not only unsatisfactory, but as adding to our embarrassments; the ingenious and laboured researches of the latter have not relieved us so entirely as could have been desired.

The various ambiguous points relative to disorders of the skin seem little likely of being cleared up by the recent nosological classification of Professor Sprengel. According to this writer, the Greek leprosy and the Arabian or tubercular disease are only different species of the same genus: this latter is represented to occur under three different forms; the second of which is the Grecian or scaly, and under the last of these three, the tubercular, he enumerates *five* varieties, of which one is the Norwegian or northern leprosy.*

If the preceding remarks upon the conflicting views of different authors on leprous diseases so called, should be considered as in any degree harsh or censorious, a minute and elaborate study of the subject will satisfy the unprejudiced of their truth and application: and while it happens to comparatively but few medical prescribers to become practically conversant with these singular and loathsome complaints, yet a very limited experience will enable the close observer to arrive at conclusions equally at variance with the laboured classifications of some modern authorities, as with the unsuccessful efforts of their early predecessors.

The learned and classical investigations of Dr. Good† have led him to dispose of squamous affections under the genus *Lepidosis*, and to divide them into four species, the last of which is called by him the *L. ichthyasis.* Though the terminal *iasis* is by general consent applied to all the species appertaining to this genus of diseases, yet the

* The Radesyge of Holst and others. † Study of Medicine.

word *ichthyosis* is preferred on this occasion as that which is most commonly used.

The characteristic of this genus, applies to those diseases which consist in an exfoliation of the cuticle in scales or crusts, and in some instances of almost a horny texture of the integuments: their outline is not regularly defined. Dr. Good considers them as owing to a morbid state or secretion of the rete mucosum or adipose layer of the part immediately beneath, which is sometimes too dry or deficient in quantity; sometimes, perhaps, absent altogether; sometimes, he adds, charged with a material that changes its natural colour; and sometimes loaded with an enormous abundance of a glutinous fluid; occasionally combined with calcareous earth. These lines of distinction are important to be kept in recollection in considering the pathological character of the elephantiasis of the Greeks; and for clinical purposes must not be overlooked.

In the *ichthyosis*, or fish-skin disease, the cutaneous excretories seem to throw forth such an excess of earthy material, that it sometimes encases the body, according to the language of Dr. Good, like a shell; and the cutis, rete mucosum, and the cuticle being equally impregnated with it, the order of the tegumental laminæ is destroyed, and the whole forms a common mass of bony or horny corium, generally scaly or imbricate, according as the calcareous earth is deposited with a larger or smaller portion of gluten, in many instances of enormous thickness; sometimes giving rise to sprouts or branches of a very grotesque appearance; thus offering numerous varieties.

The instances of the simple fish-skin disease are not so extremely rare; they may be seen in different climates, in individuals of different habits of body, and at different seasons; but cases such as those recorded by Machin, Baker, Ash, Martin, Home, and others,* may be cited as affording most singularly interesting pathological facts. It appears somewhat remarkable that Dr. Bateman, in noticing the characteristics of ichthyosis, should state that the disorder has only some tendency to scaliness, but without desquamation or the deciduous exfoliation. The Lepidosis ichthyosis is designated by Dr. Young, as being marked with scales, harsh, dry, and almost horny.† But the peculiarities of the fish-skin disease, according to different authors, are almost innumerable. Avicenna tells us the desquamation is accompanied with much itching; Dover, a slender authority, but one who had some practical opportunities, states it is bounded by a red

* Philosoph. Trans. of London; Willan, Alibert, Bateman, Medico-chirurg. Society of London. Lawrence, Lectures.

† Medical Literature.

margin; and in the Transactions of the Leipsic Society, it is mentioned, that the patient is not only invested with scales, in the manner of fish, but that he emits the exhalations of that animal. Æger non solum squamis piscium instar tectus erat, sed etiam piscium odorem spargebat.*

The writer of these remarks has had various opportunities of witnessing several forms of those cutaneous disorders, which have been arranged under the denomination of *fish-skin* diseases. Like the tumid affections of the lower extremity they may be deemed of different kinds, and as deriving their origin frequently from different and even opposite causes. Hence the necessity of greater precision in the language employed in the description of them; and the inutility, if not impracticability, of grouping them together without full regard to specific differences. No one duly cautious would think of associating the case of puerperal sparganosis recorded by Mr. Chevalier, in the Transactions of the Medical and Chirurgical Society of London,† with the swelled leg described by Dr. Hendy, though both may be pronounced enlargements of the inferior extremity. Clinical discrimination will consider the former as one of the morbid terminations of phlegmasia dolens; and the latter as a complaint mostly endemial to certain of the West India Islands, so much so as to have obtained its appellation therefrom; and as possessing peculiarities at variance with the characteristics of the ancient or true elephantiasis. Moreover it becomes indispensable to an accurate knowledge of those disorders, that attention be paid to the divers sources of derangement of organic action, and consequent morbid structure. Details ought to be confined to concurring causes and essential symptoms, and the fact must not be overlooked, that many of the most popular writers have incautiously adopted in their accounts the too fanciful and poetical description of Aretæus, and in lieu of personal observation contented themselves with being copyers of the copyists of that eloquent author; or, like Mead, Vogel, Falconer, Larrey, have incautiously confounded diseases of obviously different characters and natures.

It is not a little singular that one of the most happy descriptions of the leprosy, that has recently appeared, is that by a gentleman unconnected with the medical profession, a Mr. Huggins, an indigo-planter in the district of Tirrhoot. His account relates to that species of the complaint which is prevalent in India. The reader will be struck with the circumstances which marked the disorder,

* Sauvages, Nosolog. Method. † Volume II.

as given by Mr. H. and those published by Dr. Adams in his Morbid Poisons.

It will readily be conceded that Dr. Good has materially lessened the obscurity in which the different species of ichthyosis have so long been involved; and by the attention which he has bestowed in the investigation of these rare disorders, augmented his claims to the gratitude of the medical philosopher. In the brief histories of the several cases of ichthyosis now given, little more is attempted than a faithful notice of the peculiarities in the causes and appearances of the disease in the different subjects of it. It is presumed they contain facts of sufficient value for future consideration.

Case I.—S. J. the subject of this case, aged 54, was born in the city of New York. Both his parents were natives of this country. He had suffered full six years of the complaint at the time he consulted the writer, in January, 1824. Shortly before the first invasion of the disorder, he received a slight abrasion on the lower and anterior part of the right leg: this was followed by some pain, redness, and the discharge of a thin humour somewhat acrid, which within a reasonable period ceased, and the whole promised well. But after a while, he again felt local inconvenience; a thin humour reappeared, and a dry scurf was induced in several parts of the limb. On the other leg a like appearance was manifest soon after this time, and this was marked by the formation of small crusts which used to fall off and leave the surface inflamed. The parts about the ancles, in both legs, often swelled considerably; fresh incrustations formed, and the disorder extended itself to about half way up each leg, on the *outside*. The whole desquamation, finally, put on a happy illustration of the fish-skin eruption. It may have been about two years before the disorder was thus entirely formed.

At the early period of the coming on of the complaint, the patient, at irregular intervals, was affected with rigors; these were sometimes succeeded by general febrile disturbance and considerable cerebral determination. After the continuance of the affection for two or three years, these constitutional symptoms lessened in activity, and his health became improved.

The patient was of a sanguine temperament, not particularly plethoric, though for a large portion of his life he suffered occasional attacks of epilepsy, which sometimes spontaneously left him, without much prostration of his strength, mental or physical; and at other times required copious depleting means for relief. His digestive organs through life preserved their wonted tone, but were frequently called into laborious duty by his generous habits of living. His situa-

tion in life and professional pursuits, enabled him to enjoy exercise in the open air, nor was he ever subjected to severity of application or close confinement. Neither on the part of his parents, nor of his brothers or sisters, did any appearance of a similar affection ever exhibit itself. One of his younger brothers suffered from attacks of catalepsy. His own children have no hereditary taint.

What were the causes of the eruptive diseases of S. J.? Minute inquiry has led to the following facts: in early age the patient entered largely into the indiscretions of youth, and did not escape the consequent penalties. His constitution was repeatedly subjected to severe mercurial treatment, which there is every reason to believe effected its wonted remedial changes. His system thus acted upon, may thereby have become predisposed to eruptive complaints; yet there was no assignable peculiarity either in his diet, regimen, or other circumstance, that could be deemed efficient in the causation of ichthyosis.

As to the treatment, he occasionally used aperients, calomel and jalap, the Epsom salts and magnesia, and the warm bath: locally he washed for a long period with Goulard's extract in solution, and applied the flannel roller. In January, 1824, he commenced with the Plummer's pills; for a considerable time used a weak solution of the corrosive sublimate; this was at intervals laid aside for the unguentum citrinum mixed with simple cerate, or the white precipitate ointment. The disease evidently was mitigated for a while by these means, but again returned with its accustomed energy. He now employed the warm bath more freely than formerly; the alterative pills of Plummer, or of corrosive sublimate were continued, and the white precipitate ointment with hellebore, and the bandage. He improved somewhat, but fearful of the vicarious consequences that often take place from the suppression of long-continued irritation and discharges, and aware of his tendency to epileptic attacks, he desisted from further medical prescriptions, and was satisfied to endure the inconveniences he had so long sustained.

Case II.—So long ago as the year 1810–11, the case now to be noticed, fell under the observation of the writer, while a pupil of Dr. Hosack. The subject of the disease was the late learned and eminent Dr. Dancer, of Jamaica, W. I. The character of his complaint was that form of ichthyosis which Dr. Willan has delineated under the name of *Ichthyosis cruris*, and his xixth plate most accurately exhibits the affection as it afflicted Dr. D. then about the sixtieth year of his age.

In this instance, the ichthyosis may justly be considered as among the evidences of that general vitiation of the body under which the patient had laboured many years. For a long time before the appearance of this cutaneous disorganization, he had endured the horrors of a disordered imagination, depressed mind, and disturbed digestion; great restlessness, irritability of stomach, pyrosis, flatulence, inordinate eructations of wind, and an irregular action of the functions of the bowels: the evacuations of the intestinal canal were scanty and depraved; sometimes surcharged with dark biliary secretions, at other times of a clay colour. The urine often very sparing, and loaded with adventitious matter, depositing a yellowish or branny sediment. Added to these distresses, he for more than four years was oppressed by a general and pervading dropsy. His dyspnœa was truly afflicting; pulse often scarcely perceptible, small, wiry, or intermittent. According to his own account of his symptoms, (a diary of which he carefully preserved,) more than twelve months had elapsed since he was able to lie down, or assume a horizontal posture. His skin, over the surface of his whole body, was of a dark, biliary aspect, but the cachectic state of his inferior extremities, now the more especial subject of consideration, extended from a short distance below the knees to near the division of the toes. His consequent incapacity of locomotion was great, and this condition of things was still worse at those periods when the cutaneous lamina cracked and poured out an acrimonious watery discharge.

It may be pardonable to enlarge a little more on this interesting case. Though there exists no need of accumulating facts to confirm the pathological truth, that general serous effusions or diabetes often prove the sequelæ of a vitiated habit: yet in the present instance, the universal dropsy of the sufferer, could be attributed to no other operative cause. Dr. D. entertained, for the most part, accurate views of the nature of his situation, but could not be prevailed on to believe, that of the number of his calamities he had water in the peritoneal cavity, until, by tapping, the necessity of which was urged upon him by his physician, Dr. H., nearly three gallons of water were thus drawn off. "I am fully aware of my disorder in all its hydra forms," he would say to his medical prescriber: "I have disorganization of the digestive apparatus, but no water in the belly;—my scrotum is as big as a watermelon;—and, doctor, my legs, they are the legs of the rhinoceros."

There can be no doubt of the agents which predisposed and led to the establishment of this disease. The patient's long residence in a

hot climate, his excessive indulgence for many years in epicurean habits, and his total disregard of the monitions of his illustrious predecessor, Boerhaave, for the preservation of health,

Venus et Bacchus rarius colantur,

present circumstances which supersede any further investigation as to the origin of his hydropic and cachectic state. Great as were his bodily sufferings, anxious as he was for his recovery, yet momentarily apprehensive of dissolution, his well cultivated mind supported him in his severe trial, and occasionally exhibited proofs of its sustained force and acuteness. To an impertinent intruder, who at this ill-seasoned hour entered his room, when death had all but fulfilled his sad office, soliciting his subscription to a work on the immortality of the soul, with much effort raising his head, with great feeling and self-possession he answered, "friend, I am just making an experiment on that subject myself, and am in no need of human opinions about it."

Case III.—From the patient himself the following circumstances of his case have been derived. They can be fully depended upon, and furnish an instructive history of *hereditary ichthyosis.*

M. J. aged twenty-four years, is a native of Massachusetts: his ancestors, for several generations, were also natives of the same state. He has been afflicted with the disease from his infancy; the parts most affected are the following:—

The head is constantly surcharged with a large quantity of what the patient commonly calls dandriff, which freely comes off upon combing the hair. The face is entirely free and natural.

Of the superior extremities: on the anterior part of the neck, and partially on the shoulders, the scurf is considerable. From the shoulders to the wrists the arms and fore-arms are imbricated with this tegumen, which is larger and most compact on the arms. His whole trunk both anteriorly and posteriorly, are also invested with the disorder. On the lateral parts near the axilla it is scarcely visible. The lower portion of the abdomen is also covered with the like scales, which are lighter at the pubic region: the mammæ also participate in the disorganization, and are unduly tender.

Of the inferior extremities: the inside of the thighs are exempt, while the hips and the anterior and outer parts of the thighs are closely covered with these calcareous scales: there is but a very slight development of this morbid structure near and at the popliteal portion of the leg, but all below the knees on the anterior parts of the legs

are closer invested than any other section of the body and with larger scales. At the feet, this scaliness seems to be gradually lost, so as to have little affected the insteps; and upon the ancles of both legs on each side, the integument is clear.

It is further to be remarked that the soles of the feet are softer than the palms of the hands, and that both are free of the infirmity: that the joints and those parts of the body where the perspirable secretion is greatest, are most free and natural; and that during the warmest period of the summer season, the disease so far disappears as to be scarcely at all perceptible: at the time of the transitions of the seasons from colder to warmer, the scales fall off in large quantities, especially at night; while at the coldest time of the winter the disorder is most extensive and formidable. Moist weather rather lessens the evil, while dry aggravates it.

There is nothing peculiar in the habits of the patient that can aid in accounting for the disease; he is temperate, not affected with unusual thirst, moderate in the use of animal food, and in nowise fond of salted provisions. He has never been subjected to the malign effects of mercury, nor suffered any glandular derangement: he bears without disadvantage the greatest fatigue; his virile organs possess more than the wonted energy of those functionaries, and his mind, though occasionally dejected, is remarkable for its activity and vigilance.

The present instance gives additional confirmation of the hereditary nature of this disease, though no case of this kind seems to have fallen under the cognizance of Dr. Willan. Nor, says the same distinguished author, in treating of this complaint was more than one child from the same parents affected with it. In several instances, adds he, the disease was said to have been connate, and in others to have occurred two or three months after birth: in one case it appeared soon after the small-pox, at the age of ten years, and has continued five or six years without alteration.*

On this point the ensuing facts are curious and instructive. His grandfather suffered from a like affection. His father was totally free from it. His grandmother and mother enjoyed the like immunity. Of five brothers, two suffer from it; the patient himself, the last but one of seven children, and his eldest brother, the second child. Of the two sisters, both are exempt from the slightest marks of the disorder; the eldest sister, aged about thirty-six years, has eight children, one of whom, a boy, has the complaint. The younger sister, who is

* Willan, 4to. page 199.

the youngest child, has two children, one of whom, a girl seven years old, is affected in like manner.

He has done little for his relief, cherishing no hopes of permanent benefit. Aperients, as the saline cathartics, and occasional doses of calomel and jalap, have been at various times prescribed by different physicians: the warm bath has always proved advantageous for a while. He has taken sulphur internally. He was once under the constitutional action of mercury, for an acute fever, but it wrought no change in the character of the ichthyosis. A solution of the corrosive sublimate, used as a lotion, gave temporary advantage. He has been recommended the use of iodine.

This cutaneous desquamation, has, in all these instances, appeared very early in life, between the first, second, and third year. It is proper to observe, that the appearance of this form of ichthyosis is like that happily depicted, under the name of *Ichthyosis simplex*, in the xviiith plate of Dr Willan. The squamæ, however, are in general larger and more crowded together. The sufferer has at no time been harassed with pustular eruptions; he has often complained of a universal dryness of the skin, and much itching. All his teeth became carious at an early age.

Case IV.—There is the less necessity for a minute description of the peculiarities in the appearance of this case, as the accompanying engraving presents to the observer a better idea of it than any language can impart. The drawings were made with the greatest fidelity by Dr. Alexander Clinton.

The history of the disorder is briefly as follows:—The patient was born in New England, and both his parents, who were Americans, had always been free from every vitiation of the skin or glandular disease. He was first seen by the writer about October, 1820. He was at that time, twenty-nine years of age: the cutaneous disorganization had been on him about sixteen months, but had somewhat varied at different periods in its character and extent. Previous to the first invasion of the complaint he had enjoyed good health, excepting occasional attacks of pulmonary irritation: about a year before the evidences of his impetigenous disorder came on, he was subjected to financial difficulties, and gave himself up to an indulgence in spirituous drinks, by which his strength was much broken, and a slight anasarcous condition of his lower limbs succeeded. These were the prominent occurrences which seem to indicate his malady to have been of constitutional origin. When the cutaneous disorder made its approach, he complained of occasional irregular pains of the back and limbs, headache, loss of appetite, and great depression of spirits. The bowels

were irregular, and often torpid. As the autumn and winter advanced the form of his disease became more severe; he encountered greater constitutional disturbance, and febrile irritation. He was sometimes deprived of all power of pursuing his customary vocation, which required much exercise on foot, and he was rendered peculiarly susceptible of the variations in the temperature of the weather.

From some indications it now became more apparent that his general habit was vitiated. In different parts of his body slight discolourations of a scorbutic nature made their appearance. The exhalations of the skin were extremely offensive; his breath fœtid; the dejections of the alimentary canal at times dysenteric; and his strength lessened. These circumstances, however, were in a degree removed by the use which the patient of his own accord made of aperients, sublimed sulphur, warm bathing, and a diet mostly vegetable. Yet after a while he relapsed, and now supervened the ichthyosis delineated in the annexed drawings.

On its first appearance it occupied the middle and anterior portion of the leg, and much resembled the light scarlet-coloured spots marked *a*. These were followed by larger ones of a darker red colour, and after coalescence they here and there seemed to be constituted of groups of small verucæ, invested with different hues, some of a dark brown, and others of a greenish brown crust. The elevations were very irregular in height and shape, void of a laminated structure, and taking on the cauliflower appearance: slight cracks or fissures occasionally intervened, and a discharge somewhat purulent might be observed. Surrounding the lower part of the leg and the instep, the fish-skin desquamation was most conspicuous and enduring. There was no affection of the groins.

See Plate IV. figures 1 and 2 of the right leg. Figure 3 accurately shows the condition of the left leg. On both legs, at different times, deep excavations occurred by the ulceration which surrounded the base of some of these fungiform tubers, see fig. 3. *b*. Very slight injuries or abrasions would cause many of these elevations to drop off, sometimes they were snipped off with the scissors, little or no discharge following. Upon rising out of bed in the morning, a considerable portion of the fish-skin covering might be seen to have desquamated.

The present case furnishes facts directly in opposition to the assertion of Dr. Willan, that this disorder is never seen on the inner side of the leg.

The duration of this disease continued about five months after he had applied to the writer for relief. The patient being apprehensive

of the fatal tendency of his complaint, too often surrendered himself to grief and its temporary alleviations, but by the earnest persuasion of friendship he was brought to yield to the severe discipline of appropriate dietetics and the materia medica.

In addition, he carefully guarded himself against exposure to the inclemencies of the weather, and other causes which materially aggravate the nature of cutaneous diseases. The medical treatment may be summed up in a few words. It is grateful to state that its issue was entirely successful; a fact of the greater value when the inveterate nature of this disease is considered. Since dismissed, there has been no recurrence of any of his symptoms, and for a period of seven years the patient has remained wholly free from the slightest affection of the skin.

After the free administration of active cathartics, such as calomel and the pulvis purgens; Epsom salts and magnesia; the infusion of senna and cremor tartar; the bowels was kept open by the occasional use of the rhubarb and magnesia mixture. He was enjoined the warm bath at the temperature of 96°, every other day. This was sometimes slightly medicated with the nitric acid. He also applied at intervals to the diseased surface the nitric acid in weak solution; this was found serviceable for a time, inducing very little pain or uneasiness, and acting as a salutary irritant on the tubercular excrescences.

The arid condition of his skin remained unaltered. Plummer's pills were ordered, one, morning and evening; these he took for many weeks, but sometimes substituting the pill hydrargyri or the corrosive sublimate in their stead. An ointment of the white precipitate of mercury with an equal portion of that of pitch, applied, *ter in die*, was attended with every desirable advantage. The excrescences ceased of their growth, and gradually diminished. Those parts where cicatrization was needed, were perceived to be undergoing that process.

A few drops daily of the arsenical solution was now given internally, and the affected parts touched with the same. After a short period he was recommended to take pulverized charcoal, united with about one-fourth its bulk of powdered myrrh. This prescription the writer had found very serviceable in that impaired state of the habit which is sometimes brought on by the united powers of syphilis and mercury, and it did not in this present case disappoint the high expectations anticipated. During the whole course of the treatment the greatest regard to cleanliness of the parts was enjoined, and the diet of the sufferer was mainly of the vegetable kind; latterly he

was allowed the liberal use of porter. He also drank freely of the decoction of the sarsaparilla.

Pathologists have noticed a latent or occult stage in divers disorders, and this peculiar state seems to exist more commonly during the generation of cutaneous affections. Hence authors often differ as to the precursory symptoms of complaints of this nature. In Case IV. both from the history of the disease itself, as well as the circumstance of cure, that it ultimately yielded to strong constitutional remedies, it seems obvious that it originated independent of hereditary taint. There was nothing contagious in its character, the venereal passions of the patient were gratified without injury to his particeps lecti.

New York, June, 1828.

ART. II. *Observations on the Reunion of Fractured Bones, with Cases, illustrating the utility of Pressure in the treatment of Ununited Fracture.* By THOMAS H. WRIGHT, M. D. Physician to the Baltimore Alms-house Infirmary.

IT is not the purpose of the present communication, to investigate particularly the causes which obstruct or defeat the efforts of the constitution to restore the unity of fractured bones. Those causes are various, and perhaps are generally understood, though few attempts seem to have been made to elucidate their nature, or point out their mode of influence. The main impediment to the process in question, has been referred, in general terms, to debility, or a certain defect of power, either of the whole system or of the part, to set up and maintain the proper formative actions. This state of disability may be the effect of common hurtful causes, which, either by their intensity or continuance, may depress the powers of the system below the point of energy necessary to the repair of great local injuries; or some specific causes, affecting the power of the constitution to preserve or restore its integrity of structure, are supposed to display their character and effect, chiefly in suspending or vitiating the action of ossification. Among the latter, are ranked the severer forms of scrofula, syphilis, scurvy, &c.

Whatever may be the effect of general or special causes on the constitution, in interrupting or altering the actions of nutrition, and particularly of the nutrient office of the arteries of bones, it seems pro-

bable that the state of ununited fracture, as it is commonly found, is often the result of circumstances independent of any remarkable general or specific disability of the whole system. Such a consequence is perhaps usually induced by causes whose range of operation or effect is confined very much, if not altogether, to the point of injury.

It is to local circumstances, either arising out of the character of the lesion, or casually interfering with the design and efforts of the constitution to repair the injury, that we are to look for the ordinary causes of ununited fracture. To the first class belong bad forms of compound or complicated fracture, in which there arises a necessity for extensive exfoliations, attended by inflammation, and perhaps repeated and profuse suppuration, before the bones can be brought into a state to undertake the work of permanent reunion. Here the energies of the parts become subdued by their being kept so long in a state of irritation, and forced into the performance of actions alien to the office of restoration. Hence it may happen, that before the tedious process necessary to remove all impediments to reunion out of the way is completed, the parts may have lost either the natural tendency to such union, or the power to effect it: an inefficient or altered action takes the place of the natural office, and the parts become accommodated to their new relations, without future efforts toward their original connection.*

Another class of causes which tend to frustrate the design of nature, in the repair of fractures, and the operation of which seems to be purely local, are all the circumstances which prevent such relation and repose of the parts as are essential to the perfection of the work to be performed. A certain correspondence of surfaces, and concert of action between the fractured extremities, are indispensable to firm union; and whatever tends to obstruct, either constantly or frequently, the state of contact and rest, will commonly hinder in part or altogether the act of reunion. Hence imperfect reduction or apposition of fractures, errors of position, improper or inefficient means of support, frequent or causeless movement of the parts, unrestrained mobility of the patient, inattention to the state and effect of the supporting means, the too early removal of the necessary defence by splints and bandage, and, lastly, premature or untimely attempts to bring the parts into action and use; all these, and more of a similar

* The ultimate defect of proper union, arising from those causes, obtains only in relation to the bones, because the lowest in vital energy and actions of the parts concerned. The soft parts around the fracture, (in cases complicated with wounds or suppuration,) regain their healthful function, and never cease their efforts to restore their natural integrity of structure and office.

tendency, are calculated to disturb, and, at last, to defeat a process which can only be perfected when wholly guarded from such interruptions.

It will sometimes happen, that in cases of fracture, where the nature of the injury involves a long train of repeated local inflammation, abscess, and exfoliations, the general system will be brought to suffer from sympathetic irritation, until its tone and energies are greatly impaired; and thus constitutional infirmity may be superadded to local weakness, as conjoint occasions of the imperfection which at last results. But it by no means necessarily occurs, that the constitution shall always suffer materially, or even in any sensible degree, in every case of compound or complicated fracture. Not uncommonly in fracture of the worst kind, attended by the usual signs and consequences of great local irritation, the constitution remains through the whole course of the injury, seemingly indifferent to the condition of the part; manifesting no concern in its morbid state, remaining exempt from fever, and coming through a long process of tardy repair of the part, with scarcely a sensible mark of hurt or disability, other than the simple result of protracted inaction.

In estimating the circumstances which impede the reunion of fractured bones, it has been common to rank advanced age among the causes of that defect. This state, in general, is no doubt distinguished by actions of waste, rather than reproduction, though it may perhaps be questioned whether the majority of instances of ununited fracture bear especial relation to any period of life. It is certain that such cases have frequently occurred in youth and middle age, and many of the determining causes of the imperfection in question, exert their influence independent of any predisposition or proclivity from time of life. Besides the general incompetency of old age, to institute new actions of formation, growth, or consolidation of parts, there is a condition of the body peculiar, with very few exceptions, to that era of life, which has been regarded as necessarily incompatible with the performance of any important acts of reorganization or repair of structure. It is known that the instruments of construction by which the organization is formed, preserved, and restored, often become at that period the subjects of a morbid state, calculated to impair or subvert their power of performing their natural office, while the vascular system frequently undergoes that remarkable change distinguished by the term ossfication, or, more properly perhaps, calcareous degeneration of the walls or tunics of the vessels; and it may be presumed that such a change occurring to the capillary series of nutrition, must greatly embarrass, if not wholly extinguish, their capacity to elabo-

rate new parts, or restore connections which have been destroyed or lost. This state has been supposed to form, and may in reality constitute, another occasion of ununited fracture, and may be classed among general or local causes, according as the degeneracy in question may be extensively displayed through the vascular system, or obtain only among the capillary series of the extremities, to one of which fracture may have occurred. It seems sufficiently plain, that vessels in the state, (if I may be allowed the term,) of petrified tubes, are no longer fit to perform the secretory or nutrient office, by which the structure, life, and functions of the organization are maintained; and the effect of such transformation of the instruments of nutrition, when extensive or general, is manifest in the more or less rapid, yet certain decay or death of parts among which such conversion obtains.

I have adverted to the supposed influence of old age, in causing imperfection or failure of bony union, and readily assent to the general propriety with which the advanced and declining epochs of life, may be considered as unpropitious to the active functions of growth, nourishment, and renovation of parts, yet I have been frequently struck with the resources of the system in old age, as displayed in the prompt and perfect repair of injuries both of the soft and solid parts of the body. In the closing of wounds, the filling up and healing of extensive ulcers, and the firm reunion of fracture, it has occurred to me to observe all those processes accomplished with a facility and completeness scarcely exceeded at any age, in some instances where the subjects of such accidents had passed the eightieth year of life.

Ossification, or calcareous conversion of the vascular tunics, though a common occurrence at that period, is not the invariable concomitant of senescence; and though seldom occurring before middle age is past, does not correspond, either in origin or degree, to the *relative advance in life* of the individuals in whom such change may exist. It is found to have occurred in some persons at forty or fifty, in others at sixty or eighty years, and is sometimes present in a greater degree, (or more manifestly,) at the former than at the latter age.*

* The most explicit instance of calcareous degeneration of the vascular coats, which has fallen under my notice, was displayed in the case of a man who died within a few days past, (April 6th,) at the Baltimore Alms-house. All the superficial arteries of distribution, as far as they could be traced, gave the sensation which results from pressure on solid chords or cylinders. No pulsation was discoverable in any of the vessels of the extremities. The subject was over ninety years of age, and died after a few days illness, with symptoms of subacute peritonitis, and irritative fever.

From all the means of judging which a few examples afford, I am inclined to the opinion, that some degree of ossific degeneration of the vessels of the extremities, would not invariably or necessarily involve a failure of bony union, should fracture occur to limbs thus circumstanced. It has been my duty to attend to more than one case of fracture of the leg, in individuals exhibiting distinctly free calcareous conversion of the tunics of the arteries of both the upper and lower extremities, where they were accessible to examination. Those cases presented ultimate apparent* consolidation of the fracture, though the process of bony union was sometime doubtful, and of tardy accomplishment, requiring unusual confinement, and more than common attention to the sustaining and intimate relation of parts. Possibly in those cases where bony union obtains in fractures, notwithstanding a calcareous state of the vessels of the limb, the nutrient arteries of the bones, may not be affected by the change which the capillary series of the surrounding soft parts have undergone.

The following cases are reported to illustrate a principle in the treatment of ununited fracture, which the untoward and embarrassing circumstances of the first case suggested, as offering the best promise of averting the great evil of permanent disability from such an accident. At the time this case was under treatment, I had met with no account of the similar intention first acted upon, it would seem, by Mr. Amesbury, and since practised in one instance by Mr. Brodie, and possibly by others. I allude to *pressure*, applied with the design maintaining ununited fractured surfaces in a state of more strict and continued apposition and contact, than had been accomplished, or attempted, by the means usually employed. I have not seen a particular exposition of Mr. Amesbury's views or propositions on this subject, and regarded his plan of treating fractures, as contemplating chiefly such support of the whole limb as would effectually sustain the apposition of the fractured points, and at the same time exempt the patient from the tedious confinement to position necessary under common modes of treatment. I am acquainted, in fact, only with the general design announced by Mr. Amesbury, in the treatment of fracture, and the apparatus used by him for the purpose, as published some years since; and was not aware that a regulated pressure, properly so distinguished, was distinctly involved in his plan, with the special purpose of preventing or remedying ultimate defect of union. But as Mr. Bro-

* I use the term apparent, because the absence of obvious or sensible motion at the point of former fracture, is not absolute proof of bony consolidation. The point of fracture is sometimes so braced by ligamentous connexion, that no ordinary force will cause obvious movement in the part.

die refers his own adoption of strict pressure in the treatment of ununited fracture, to the suggestions of Mr. Amesbury, it is inferrible that the more explicit modern recommendation of the plan, may be attributed to that gentleman.

In the excellent treatise on fractures and dislocations, presented to the profession by Sir Astley Cooper, the subject of pressure in fractures of tardy union is briefly noticed; though it seems to have been resorted to chiefly with the design of maintaining apposition in cases, where, from the nature and seat of the injury, there was particular tendency to separation of the fractured surfaces.* The work of Mr. Cooper, did not come into my hands, until some time after the termination of the first case reported, in which the expedient of pressure was suggested by the necessities of that case, and successfully employed. The plan of treating ununited fracture, which the profession, both at home and abroad, owes to the now veteran chief of American surgery—of whom we may well be proud, because, with so distinguished merit, he is not proud of himself—will, perhaps, always rank as the most efficient, probably the only efficient, mean in chronic cases of ununited fracture, especially in transverse ones of the large single bones of the extremities.

Cases of false articulation, as they were formerly termed, have been long objects of interest and embarrassment to surgeons, and were for the most part unmanageable by the resources of art employed for their correction. It was early discovered, that the cause of the defect consisted in a failure of the ossific process, and the substitution of a species of ligamento-cartilaginous matter, by which the fractured ends of the bone were covered, and separately rounded, so as to permit them to glide or move freely upon each other. The obvious indication suggested by this state of parts in ununited fracture, was to excite a new action in the fractured extremities, by which the natural bond of union might be produced. Hence we find the first attempts to correct false joints, were regulated by the intention of creating a state of inflammation in the ends of the bone, thus stimulating them to throw out the matter necessary to their consolidation. The earliest mean by which the design was attempted to be accomplished, was friction of the points of fracture upon each other, as frequently and forcibly as was deemed necessary to ensure a new state and new action in the parts. This method was said to have sometimes succeeded in establishing solid union, but the plan seems to have

* See Case of Fracture near the Condyles of the Femur, reported by Mr. Wellbank, page 180.

been loosely conducted, was soon in a great degree laid aside, and perhaps never effected what it intended. One prominent defect of the scheme, was, that no means appear to have been adopted to maintain such apposition of parts subsequent to the frictions, as was necessary to facilitate reunion.

A bolder scheme of treatment in ununited fracture succeeded. It consisted in cutting down to the false articulation, and sawing off the smooth extremities of the bone, thus reducing the parts as nearly as possible to the state in which they had been at the first moment of injury, and treating the case de novo, as a compound fracture. This plan has been often tried, with various success, and controverted credit. The French surgeons, (Boyer and others,) say it is an expedient seldom fortunate, and practicable only on limbs with single bones, the femur and humerus. The English surgeons, Whyte, Wardrop, &c. speak confidently in commendation of this adventurous experiment, and of its successful application to double as well as single bones. The plan in question has certainly been sometimes effectual, but the serious degree of both local and constitutional irritation, which has often ensued to this operation, is justly considered a formidable objection to its employment, and it is now seldom practised.*

An important improvement on the plan of treating ununited fracture first practised, was suggested and brought into use about the year 1804, by Mr. White, of Manchester. Acting on the intention originally consulted, he at the same time placed the parts under circumstances favourable to the end proposed, and thus remedied the defect which had almost always frustrated the design under the first method of treatment. Mr. White applied to the limb in which a false joint existed, the thigh for example, a strong case, made of sole or saddle leather, lined with a soft material, and adapted to the length and figure of the limb. The case extended from the great trochanter, ileum, and ramus of the pubis to

* The successful excision of carious and shattered joints, by Park, the Moreaus, Larrey, &c. give strong collateral sanction to a similar surgery in cases of false joint. But perhaps no instance on record bears with more direct analogy on the question of operation in such cases, (all other means of effecting reunion having failed,) than the unique and triumphant experiment performed by Dr. Barton, in the Pennsylvania Hospital, for the *creation of a false joint.* An enterprize projected on sound science, proposed with honourable caution and candour, executed with great skill, and justified not more by the event than by the magnitude of the evil to be overcome, and the importance of the benefit contemplated.

the patella and condyles, was made to embrace the thigh as closely as possible, and buckled firmly on by straps, so as to prevent the ends of bone at the false joint from sliding out of their proper and direct apposition to each other. The case was worn constantly for the necessary period, was kept firmly braced by the straps, and the patient directed to walk about, and use the limb as much as possible. Drs. Inglis and Brown report cases of false articulation treated in the Royal Infirmary of Edinburgh on the plan of Mr. White, with complete success. Examples are related of patients in the infirmary with ununited fracture of the thigh, upon whom the case was applied, the patient sent into the country, with the proper directions for the management of the apparatus, and his returning in a month or two afterwards, walking well and firmly, and bringing the case in his hand to restore it to the institution. The period of time for which it was found necessary to maintain strict support by the case and straps, varied from five weeks to two or three months.

It is evident that the design and management by the case and straps, with free motion of the limb, as just described, differs somewhat from that by pressure, with rest—or what may be termed still-pressure. In the one case, the direct gravitation of the body upon the false articulation, seems calculated to induce a high degree of irritation upon the antagonizing points of bone, while the very free use of the member in locomotion must cause a constant, though limited range of friction between the relative surfaces. Such a state of things, namely, great pressure, and constant play of parts, would appear likely to produce bad consequences in one of two ways, either by inducing excessive local and constitutional irritation, or on the other hand, by accustoming the parts to forcible contract, and free movement, to confirm the state of insensibility and indolence of action, which had caused the original failure of union. But adversary hypothesis must be silent in the presence of facts. We are told on good authority, that the plan has been often and completely successful. By the process of pressure with rests of parts, nothing more is designed than first to promote absorption of the foreign covering of the fractured points, and thus attaining and preserving an intimate and uniform approximation of bony surfaces. If this can be attained, the system and the laws of the part will generally accomplish the rest. Without speculation on the why or wherefore of such actions, we know that if the divided surfaces of bone can be brought and maintained in a state of closeness, without the intervention of any substance foreign to their own constitution, they possess, and will exert a natural tendency to unite by bone—or what is the same

thing, actions of formation take place under such circumstances, which actions, when perfected, result in a solid homogeneous contexture of parts.

Case I.—A master carpenter, ascending to the roof of a house, (October, 1826,) slipped from the ladder when near the top, and fell about twenty feet, to a scaffold, raised a small height above the pavement. He dropped to the scaffold so that the momentum of the body and the force of concussion, was sustained chiefly on the right limb, which was fractured just above the ancle. The fracture was a very bad one, traversing the tibia obliquely for some inches, and rendered compound and complicated, by fracture of the fibula also, and the penetration of the superior fragment of the tibia, through a ragged wound of the integuments, two inches in extent. The patient was seen in a few minutes by a physician of knowledge and experience, by whom the parts were promptly adjusted in the best possible manner. After the patient had been conveyed home, the interest and alarm of some of his friends, induced them to urge calling myself also to the case. I according saw the patient in concert with the gentleman who attended in the first instance.

On examining the injury, the fractured points were found fairly together, and requiring no interference; but hæmorrhage from the wound was considerable, and after fruitless attempts to restrain it effectually by compression, it became necessary to seek out and tie, one or two, (the internal malleolar) arteries. Even then troublesome oozing continued, and as the stream was found flowing from deep in the fissure of the bone, it could only be controlled by putting down on the bleeding point a compress of sponge, which being pressed in firmly by a probe, put a stop to the bleeding. Compression in this manner was rendered easy in consequence of some vacant space caused by the removal of several pieces of bone which had been found lying loose in the course of the fracture.

The injured limb was extended on a firm surface, and well supported by broad splints on each side, braced above the knee, and reaching some inches below the foot, where the ends of the splints were locked at the proper distance, by a transverse bar received into corresponding mortices, and the leg well cushioned within the splints by soft pads made for the purpose. The wound was lightly dressed, and no bandage thrown immediately around the limb. From the lacerated state of the integuments, some comminution of the bones, and the great obliquity of the fracture rendering the point of the upper fragment of the tibia extremely thin, sharp, and probably destitute of sufficient connections for its support, it was to be expected

that high inflammation, and some exfoliation, were likely to ensue. The limb was therefore left without close dressing, to avoid irritation, and that it might be conveniently accessible for such local application as might be deemed necessary, in correspondence with the general treatment, to avert or limit the consequences to be apprehended.

In the course of the second day from the accident, great constitutional disturbance, with irritative fever, sat in, and wore for a short time a menacing aspect. Timely bleeding and purging, followed by a full anodyne impression, allayed the tumult, and brought about a calm and comfortable state. On the fourth day the wound was examined, the sponge compress removed, and a light dressing applied. The leg was not sensibly affected by swelling or inflammation, and it continued free from any unpleasant state for two weeks from the time of the accident, the wound suppurating well, and the patient's health as sound as usual. At the end of that period a change for the worse occurred. The wound, which had contracted a good deal, became gleety, the integuments tumid and dark coloured, the limb swollen, hot, and painful: the patient was at the same time affected by chills and flushing. This state of things ended in abscess, re-opening of the wound, and exfoliation from the point of the upper fragment. It is unnecessary to encumber the narrative with a minute account of the treatment pursued. The antiphlogistic and soothing plan, general and local, were steadily enforced, as far as circumstances indicated.

After this interruption, circumstances again wore a favourable aspect, and by the 28th of November, (six weeks after the accident,) the limb had lost all remains of inflammation and swelling; the wound was almost closed, a good deal of apparent firmness existed about the fracture, and there seemed every probability of perfect consolidation. This pleasing expectation was speedily disappointed. Inflammation and tumefaction again took place, followed by suppuration, and more pieces of bone were found detached and taken away. During this second painful process of suppuration and exfoliation, the limb lost all that was previously accomplished toward reunion, and now at the end of eight weeks the parts could not be regarded as more advanced towards recovery than on the first day of injury. The fractured ends of the tibia moved free and loose, and an open wound of some extent, communicated with the chasm or fissure between the fractured points.

The consequences of this second suppurating and exfoliating action gradually passed off, and again there seemed an almost successful effort on the part of the constitution, to restore the entireness of both

the solid and soft parts. The wound closed in, the bone became comparatively firm, and the limb recovered nearly its natural appearance. Such continued the state of the parts for about two weeks succeeding the last occurrence of suppuration, &c. in all ten weeks from the date of fracture. Then ensued a condition of parts more inauspicious than ever. Inflammatory œdema supervened, the whole limb swelled to great bulk, vesications formed every where on the surface, and the characters of œdematose and vesicular erysipelas were displayed over the limb in almost their worst form. This new and threatening state of things called for very great care, to prevent consequences serious alike to the part and to the system. Mild fomentations diligently maintained, strict repose of the parts, and soothing general means, aided by a constitution naturally excellent, and never abused, fortunately led on to the least hurtful termination which circumstances admitted. Free suppuration took place in the limb, the matter was discharged by incision, and the local and constitutional irritation gradually subsided. No exfoliation followed this greater than either the preceding suppurations, but there had now arrived a crisis truly discouraging. The whole business of repair was to be commenced anew for the third time. Every mark of bony union had disappeared under the high inflammation, great tumefaction, and suppuration, which severely tried the life and organisation of the whole limb. The new formations, being least able to bear the change, had all given way, and when the tension of the parts relaxed, the bones were found lying without connection, the lower fragment, with the foot attached, yielding in any direction to the slightest impulse, and requiring the most careful support to prevent the foot from declining, by its own weight, very much out of the proper axis of the limb.

Nearly three months had passed since the date of the fracture, and nothing effectual had been done toward the important end of repairing the broken bone.* But there was still room to hope for ultimate success. The patient's constitutional powers remained firm in a great degree, under so many depressing and disturbing causes. Though affected considerably during the acute periods of inflammation and suppuration in the limb, his system rallied promptly and fully when these states passed by. Strict repose of the part was still enforced—the limb kept in position, sustained by external splints and an interior padding, adapted to all the curvatures of the leg. By perseverance in these measures, the limb put on a state of great improvement,

* This remark applies to the tibia. The fibula had united early, and did not afterwards give way.

the natural figure and size was regained, and the tendency to inflammation seemed to be entirely lost. In three weeks after the last mentioned suppuration, (fourteen from the accident,) the wound of the integuments was healed, and the whole exterior of the limb looked in every respect well. The splints were now removed, to ascertain by a cautious examination the state of the bone in the line of fracture. We had then the mortification to discover a total failure in the main object of all our care. There existed a manifest disjunction of the tibia throughout the whole extent of fracture; and so complete was the disunion, that when the leg rested on the hands above the point of fracture, the foot dropped away from the upper fragment, causing the point of the latter to project one-fourth of an inch above the level of the portion of the tibia attached to the foot. By the gravitation of the foot and inferior fragment, the line of the fissure was also made to open so sensibly, that the point of the finger could be insinuated in some degree between the sides of the fracture, carrying the integument before it into the chasm. Rotation of the foot likewise caused an obvious play of alternate opening and closing in the line of separation.

Not wholly discouraged by this unpromising state, it was determined to persevere in such measures as seemed suited to promote final union. A close bandage, hitherto inapplicable from tenderness and proclivity to inflammation, was applied moderately tight, to give more direct support about the fracture, and the external splints continued. Under this treatment the limb remained free from inflammation, swelling or pain; the wound of the soft parts was firmly repaired, and the colour, shape, and feeling of the limb the same as before the accident. But raising the leg from the splints, or rotating the limb by the foot, it was evident that the tibia was totally discontinuous at the point of fracture. The fractured surfaces could be brought together, and made to move liberally on each other, but there was no longer any sensible crepitation. The inequalities proper to fracture were filled in, and smoothed over, by that fibrous deposit which comes at last to constitute the covering of fractured surfaces that have missed the bony reunion. The prospect of ultimate consolidation by the energies of the constitution, and the common mode of local management was utterly extinguished in the present case, by the state of the limb as just represented.

While anxiously looking for some resort calculated to avert from a worthy man, with a large family, the terrible evil of permanent lameness, it occurred to us that we might find in pressure steadily maintained, the mean best suited to the indication in the present case.

It was plain that mere apposition was not sufficient, under the peculiar circumstances of the case, to induce consolidation. The parts had been kept in a state of approximation and repose for four weeks succeeding the last suppuration, yet no bony union resulted. Something more than mere propinquity and rest of parts was now required. It had become necessary to cause absorption of the substance formed on the ends of the fracture, and at the same time to excite on those surfaces new attempts to the deposition of bone. Pressure presented the best promise of effecting those objects, and to be efficient it was evident that it must be as strict as the health of the soft parts would permit, and continued without remission for a sufficient time.

The simple, efficient, and surgical mode of making pressure by the tourniquet, since successfully practised by Mr. Brodie, did not occur to me. A strong, soft, double napkin was passed under the leg, extending from below the ancle, to the head of the tibia, pad-compresses of suitable size, were laid, which, when braced by the general bandage, acted as counter-wedges on the line of fracture. The bandage or napkin first laid, was drawn firmly around the limb, and confined at short spaces; at first by large pins, and afterwards by tacks. It was thus made to give uniform support and a regulated pressure through the compresses on the line of fracture, and to adapt itself closely to the contour of the whole limb from below the ancle, sustaining the inferior fragment to the top of the leg. The principle, in short, was that of the laced stocking, modified to act especially on a definite point and space. The compressing bandage was inspected, and generally tightened twice a day, and always drawn as firmly as the patient's feelings would allow. The limb was kept extended and in splints, to maintain steadiness, and preserve the correct axis of the foot on the leg.

The favourable tendency of this treatment soon became manifest. In ten days the chasm or interval of the edges of the bone along the line of fracture, was much diminished, the bones having sensibly approximated by absorption of the interposed deposit. After three weeks the depression which had always marked the line of fracture, and extent of separation, was obliterated to the touch, and the ends of bone seemed in close contact. Now, too, the tendency to eversion of the foot was lost, and moderate lateral pressure on the foot did not cause any parting at the fissure. A further particular detail is unnecessary, perseverance in the course described, produced at the end of five weeks from its adoption, unequivocal bony union. At that period the patient could elevate the whole limb; flex, extend, and rotate the foot freely, without the slightest evidence of motion in the line of

fracture. The splints were thrown off, but the compressing bandage directed to be worn less firmly applied for some weeks, and the patient admonished to avoid for the present throwing the weight of the body on the affected limb.

The cure in this case became perfect, and when the limb was enough recovered to take its share of weight and motion, it was found to have shortened less than one-fourth of an inch. The man walks now without halting, and as firmly and well on one limb as the other. This patient was confined to bed nineteen weeks and two days; and it was six months from the accident, before the consolidation was sufficient to permit use of the limb in walking.

Case II.—In August, 1827, a man, aged sixty-one years, designing to elope from the Baltimore Alm-house, to get liquor, as stated, jumped or dropped from a wall twelve feet high. He alighted on his feet, but immediately fell and was unable to rise again, so as to stand or walk. He was soon discovered, and brought into the surgical ward, when, on examination, the left leg was found broken, both bones, near the articulation with the foot. The fracture of the tibia was very oblique, and almost compound, the integument being partially cut through by the projecting upper fragment.

The bones were adjusted, the limb moderately extended and laid in a fracture box well cushioned, but was left without close bandage, to admit the free use of applications designed to allay inflammation and swelling, which had commenced, and were likely to be severe. Very great intumescence followed, with diffused inflammation, pain, &c. and it was nearly a fortnight before these were reduced sufficiently to allow close dressing. The limb was then braced around by an eighteen-tailed bandage, and sustained in position by the leg-splints of Mr. Cooper, formed with the lateral supports for the foot. The patient's constitution stood the shock without disturbance, and every thing went on apparently well for five weeks, the bandage and splints being adjusted as occasion required. At the end of that period, the splints and bandage were removed, to examine the state of the fracture. The fibula was found consolidated, but there was free motion at the line of fracture through the tibia. No crepitation could be distinguished, though the fractured surfaces were made to glide on each other with considerable force. The eighteen-tailed bandage was again wrapped closely about the leg, the limb placed in position, and the splints re-applied. This plan was continued three weeks longer—eight weeks entire—when the fracture of the tibia was found still ununited.

The case was altogether unpromising. The patient was over sixty

years of age, and although showing the remains of a naturally good constitution, was, in many respects, a bad subject for fracture. Previous to the accident, the leg was in a state of chronic enlargement, from infiltration and thickening of the cellular tissue. On the leg not fractured, there existed a large ulcer, of some years duration, which could not, by the utmost attention, be brought to cicatrize. Superadded to those evidences of diminished power of natural action in the lower limbs, this patient showed in all the tangible arteries of the extremities, an advanced degree of calcareous transformation. An indurated and knotty state of the tunics, was distinctly traceable in all the superficial trunks, and it is then always probable that similar degeneration obtains in the ultimate vascular series of nutrition.

It was determined to try strict and continued pressure. With this intention, a roller was laid regularly from the toes to the knee. Over this was applied short splints, made of binder's boards cut to suit the outline of the limb, then macerated, that they might be made to adapt themselves intimately to the surface about the fracture. Those splints were laid, while pliable from wetness, on opposite sides of the fracture, and braced in their place, as firmly as could be borne, by a second roller, carried from the ancle to the top of the leg. Two lateral splints of the same material, not macerated, were next applied and secured at intervals by a few turns of a roller. These splints were sufficiently long to steady the leg, and prevent motion of the foot, the wood splints first used were laid aside, and the patient confined to bed, with the limb extended. An occasional change from the recumbent to the sitting posture, was allowed the patient; but he was altogether prohibited from getting out of bed or bringing the limb into use.

An evident change in the relation and aspect of the parts, was observed in a fortnight after this course was instituted. When the plan of compression was adopted, the superior fragment of the tibia projected so sensibly at the point of separation, as to cause much deformity by its remarkable prominence. At the end of two weeks, this projection was much reduced, and by the fourth week, the bone had regained its natural level; doubtless, by the influence of pressure on the deposited matter, which had occupied the interval between the fractured surfaces. The facility and range of motion at the fracture, were also lessened though still discoverable. The pressure, together with confinement to position, were steadily maintained for six weeks. The long splints were then taken off, and the patient permitted to put the limb to the floor, and, supported by crutches, to bring it cau-

tiously into use. The roller and close splints were kept on some time longer.

When the point of fracture was examined, some weeks after the patient began to use the limb, the part appeared very firm. No pressure, which it was thought proper or necessary to employ, whether directed immediately to the fracture, or by using the foot as a lever to rotate the limb freely, caused the slightest indication of disunion. In a month or six weeks after the limb had been brought into use, the patient threw aside all artificial supports, and walked as well as before the accident. There is no discoverable shortening of the leg.

I have doubts as to the fact of proper bony union in this case; and those doubts rest on the general circumstances of the patient, stated in the narrative, as having been adverse to union in the first instance. There is certainly nothing in the state of the part, viewed abstractly, to warrant the suspicion of heterogeneous connexion, no force that can be properly employed, causes motion of the part, nor does it yield at all to the gravitation of the body. But instances have occurred, in which pseudo union, or fibrous anchylosis, after fracture, has been so strict and firm as not to have been manifest, either by sensible motion or defect of power in the part, and were only casually discovered during some autopsic examination. Mr. Cooper, I think, mentions such a case. Even if it be the fact, that actual consolidation has not obtained in the case just reported, pressure has not, on that account, been the less an important or beneficial mean of treatment. It has restored the limb to a state of usefulness it would not otherwise have regained. Neither always, nor generally does it happen, that the weakness and discomfort of a false joint, are spontaneously overcome in course of time. Cases have been shown to me of disunion of the tibia from fracture, in which, after three years, the mobility was stated to be greater than it had been at the end of three months, and would have altogether prevented walking but for the partial support of the fibula.

Case III.—A man was brought to the Baltimore Alms-house, sixth of January, 1828, with his head much cut, and his left arm in a state of excessive tumefaction, from blows given with a heavy stick. On examination, the ulna was found broken about the middle, but the inflammation and swelling were so great as to prevent the immediate use of bandage and splints. The limb was kept at rest, under the use of local applications designed to subdue inflammation, and this being sufficiently accomplished in six or eight days, the points of fracture were coaptated, and well sustained by splints,

in the usual mode. The forearm was suspended in a state of easy flexion.

Every necessary attention was paid throughout the treatment of this case to preserve proper relation of the bones to each other, repose of the parts, and due support; yet at the end of five weeks the fracture was found as susceptible of motion, as at first. This man was at the middle age of life, of apparently sound constitution, and the failure of union could only be accounted for, from the very great inflammation, intumescence, and effusion, which had pervaded the limb in consequence of the blows, and the general disability in which the parts had been left when these passed off.

Pressure was resorted to in this instance also. A roller was laid smoothly from the fingers to, and some distance above the elbow. Short splints, of binder's board, were fitted to the interior and external surface of the limb, to afford sufficient lateral support, and were well secured in place by a roller. A long splint of binder's board, incurved, and adapted to the arm, was laid along its ulnar line, extending below the wrist to support the hand, and a shorter splint of the same material rested on the radial side, the two forming an external case for the arm, not quite close, or meeting at the edges. The splints were made to embrace the arm by straps at short spaces, which, particularly at and near the fracture, were drawn as tight as could be borne. A due degree of pressure was thus constantly maintained as long as necessary, and the result was satisfactory in this instance as in the preceding cases. But considering the age and health of the patient, and the character and seat of the fracture, consolidation was here very tardily effected. It required two months perseverance in the treatment by pressure before motion at the point of fracture ceased altogether. Now, however, fourteen weeks from the date of injury, union is perfect. The slow repair, even under close pressure and strict rest of parts, is perhaps attributable to the same cause which is supposed to have defeated union by the first process, namely, the feeble manner in which the actions of life were performed in the limb, in consequence of its having recently suffered so great inflammatory disturbance.

Baltimore, June, 1828.

ART. III. *Case of Pulmonary Consumption, showing the Influence of a Sea Voyage on that Disease.* By JOHN SPENCE, M. D. of Dumfries, Va.

J. S. in the winter of 1786–7, when attending the medical lectures at Edinburgh, and at that time twenty years of age, was attacked with a severe cough and pain in the breast, which yielded in violence to the usual antiphlogistic remedies, but continued troublesome the whole winter. He recollects that being obliged to attend Dr. Cullen's lectures at nine o'clock in the morning, an hour at that season of the year, and in that northerly region, very inauspicious for patients to turn out who labour under pectoral complaints, the weather being generally cold, raw, and cloudy; his cough was often so distressing as to attract the attention of the old professor. By great care and temperance, however, he was enabled to pay the necessary attention to his studies; and, as he expectorated no purulent matter nor blood, he regarded it as a violent catarrhal affection, which would yield to the benign influence of summer, with proper attention to diet and exercise. In this respect he was not altogether without hopes of being gratified—for his cough, though it never left him, was by no means so troublesome during the warm weather.

He now began, with some flattering prospects, to turn his attention to the duties of his profession, (having studied five years at the college of Edinburgh, four of which were solely devoted to physic,) but these prospects were soon blasted by the cough returning with increased severity in the fall of 1787, which soon disqualified him for active exertions, and compelled him to take up his abode at his native place, Moffat, a fine inland village in the south of Scotland, much resorted to by strangers on account of its medicinal springs. Here he tried as fully as possible all the known remedies, as directed by the first Scottish physicians—and so numerous were the blisters and plasters he found necessary to apply, that his breast at this day is as smooth as the palm of the hand. These remedies, though faithfully attended to, seemed only to palliate symptoms, not to check the disease in its career: for almost every night, or rather towards morning, he had considerable sweats, attended with a harassing cough and gross expectoration, and he daily became more and more emaciated.

Seeing that all the prescriptions he used availed but little, he thought the last and only means of saving his life, would be an extensive sea-voyage in a warm climate; but here he was again disappointed, for his father, who had spent a good deal on his education,

could not supply him with funds to carry this project into effect. Being now without relief and without hope, it may be easily supposed that the winter of 1787–88 was to him a most gloomy one—and, knowing some of his nearest relations had been carried off by similar complaints, (indeed out of a family of nine children, only *two* are now alive,) he began to prepare himself for his doom with as much composure as he was capable of.

In the spring of 1788, when in this extreme state of dejection, an eminent merchant in Glasgow, who is still living, and who had shown this patient much kindness during his residence at the Moffat springs, wrote to him to know if he would accept of the place of tutor to his brother's children in Virginia, observing at the same time that the voyage might restore his health. This offer he readily embraced, and the more so, as the vessel in which he was to take his passage, was not to sail till June.

Having closed his engagement, he set out for Edinburgh in April, 1788, to take advantage of the aid of his old preceptors while he remained in Scotland. Here he continued to pursue in every respect the antiphlogistic regimen, living chiefly on milk and vegetables, and riding out on horseback every good day. As the weather became warmer, his strength rather recruited—but his night sweats, cough, and expectoration were very alarming, and his pulse varied from 100 to 120.

About the middle of June he arrived at Port Glasgow, and sailed a few day after, not without melancholy forebodings. After leaving St. George's Channel, the north-west and westerly winds were so prevalent, as to induce the captain to steer his course directly south, on purpose to reach the trade winds as soon as possible. In about three weeks from the time of sailing, they were near the latitude of 30°, and so far to the eastward of Madeira as to have a distant view of the African coast.

During these three weeks, this patient laboured almost perpetually, and particularly in the bay of Biscay, where the sea was very rough, under a distressing sea-sickness, insomuch that his stomach rejected almost every thing he ate. Gingerbread was almost his whole sustenance—but he had the satisfaction of finding all his pectoral complaints getting daily better, and by this time his pulse had fallen as low as eighty strokes in a minute. Extreme inanition rendered him very weak.

Having met with the trade wind in latitude 30°, on the 17th of July, there was a fine steady breeze for about twenty days, and the captain advanced as far to the southward as latitude 24°. The breeze

indeed was so regular, that not a single sail was touched while in the tropical regions, a circumstance which had never occurred to the oldest sailor on board. In this immense tract of ocean the weather was serene, and the climate most heavenly. The subject of this narrative having for amusement kept a register of the weather during his passage, found in these latitudes, that, during the night, the thermometer was never lower than 75°, and never higher in the shade during the day than 78½°.

As the vessel now moved very steadily, his sea-sickness in a great measure left him, and he had a keen appetite. His breakfast was an uncommon one, but to him very grateful—it consisted of Scotch meal porridge, porter and sugar—and he generally dined on barley broth, with a bit of boiled or roast fowl and vegetables. After dinner he sometimes indulged in a glass of wine and water. During this happy period of the voyage, when every soul on board was cheerful, and, when the sailors, having little to do, passed every evening in sportive games, he experienced all the satisfaction that can arise from returning health and strength.

On leaving the trade winds, that squally, tempestuous weather, which prevails so much during the month of August on the American coast, frequently occurred; and whenever the sea was agitated, he invariably suffered excessive nausea. During the last fortnight of the voyage, indeed, this nausea was so great, that, though he had a voracious appetite, he was for many days entirely without nourishment.

On the 25th of August he landed in Virginia, after a voyage of eight weeks and some days, relieved from his hectic fever, pain of the breast and purulent expectoration, nor was his cough troublesome: but his debility was so great, that having occasion to ride fifteen miles into the country the second day after his arrival, he was so fatigued, after this short excursion, as to be under the necessity of going to bed.

Since that time till now he has enjoyed, upon the whole, good health, never having suffered much by any complaints, except those of a bilious nature. For some years past he has been engaged extensively in the duties of his medical profession, subjected to the various vicissitudes of heat and of cold, during day and night, without any return of his cough, or any affection of the lungs which gave him uneasiness.

The inferences to be drawn from the foregoing narrative will be obvious to every medical reader. It clearly points out the advantages to be derived, in consumptive cases, from an extensive sea-voyage, at a favourable season of the year, or in a warm climate. A favoura-

ble season of the year is here particularly mentioned, because the writer of this case has heard Dr. Cullen insist upon this injunction, the doctor having mentioned at the same time, that two young gentlemen, labouring under this disease, whom he advised to visit Madeira, died soon after reaching the island, in consequence of the weather during their voyage being excessively stormy, when they were very actively engaged with the whole crew, in trying to save the vessel from destruction. These violent bodily exertions, he supposed, hastened their doom.

In the history of this case, it will be observed, that in a voyage of eight weeks, this patient, from great irritability, was subject nearly five weeks to sea-sickness, or a constant nausea. To these effects of the motion of the vessel, however explained, he ascribes his cure. Though he did not lose his appetite, he was prevented from receiving regular nutritious diet—and, therefore, if *abstinence* be useful in this disease, this nausea certainly gave him all its advantges. By the agitated motions of the ship so often exciting nausea, he supposed his pulse was lowered and his febrile paroxysms abated; and, perhaps, by increasing absorption, the ulcers of the lungs were thereby disposed to heal more readily.

May not the foxglove, so remarkable in lowering the pulse, and in relieving distressing coughs, operate in the same way? Dr. Beddoes, in his Essay on Pulmonary Consumption, laments the want of an auxiliary to the singular efficacy of this useful plant? May not a *long* sea-voyage in a mild climate be the best auxiliary yet known—or, may not the foxglove be so managed as to enable a patient to unite the virtues of this medicine to the advantages of a sea-voyage?

In the above narrative, the private circumstances of the patient are purposely noted, that the state of his mind might be better understood. If disappointment, dejection, and the apprehension of death have any influence in this disease, (and by some eminent late physicians, these depressing passions are supposed to have a favourable influence,) they certainly operated in this case to their full extent. Being a medical man, he was not unacquainted with his danger, which the fate of some of his nearest relations impressed most seriously on his mind; and these impressions were not a little increased by the anxious looks of his aged parents. During the forementioned winter, he did not enjoy a "single ray of that cheerfulness, that ever-springing hope, which has been observed to be the attendant of hectic fever, and to brighten the gloom of the consumptive patient."

Virginia, November, 1800.

ART. IV. *On Intemperance considered as a Disease and susceptible of Cure.* By JOHN H. KAIN, M. D. of Shelbyville, Tenn.

AN intemperate indulgence in the use of stimulating liquors has long been viewed as the cause of a host of those diseases to which the human body is subject. That depraved appetite which bids defiance to all moral restraint, and impels the unhappy sufferer to the gratification of a propensity which increases his disease, while it lulls his sufferings, has never received that attention from physicians, which its importance demands. Bulimia, salacitas, and nymphomania, diseases in which natural appetites and passions are morbidly excited, have found their places in all systems of medical nosology, and have received a just share of the attention of medical men. A morbid thirst for intoxicating liquors has only been considered a moral disease, and for its cure moral remedies have been thought sufficient. As well might we address arguments to a burning fever, as to think by moral considerations to appease the hunger which is felt in bulimia, or that anorexia and gnawing sensation, which solicits so importunately in the drunkard for the inebriating draught.

Is it not a subject, worthy of the candid consideration of the profession at least, whether too much ignominy has not been attached to a propensity, which the most worthy of our species have been unable to resist? Men, whose conduct in their lucid moments has been most unexceptionable, who are known to possess most amiable dispositions, whose moral worth cannot be disputed, and whose talents are often enviable—such men, in consequence of an unhappy propensity, which I hope to prove to be a disease, have been branded with infamy; and even physicians have united with the pulpit and the press, to reduce them to a level with brutes. A disease which has done incalculable injury to the constitutions and the morals of men, has been combatted only with words, and the unhappy sufferers instead of receiving the commisseration of their fellow men, have been left to aggravate their disease by their imprudence, or held up to the public view as objects of scorn.

When we have seen an emaciated subject of bulimia, consuming nearly half his weight of raw beef, candles, &c. at a meal, we have not hesitated to award him our pity, and have felt happy if we could contribute to the restoration of his health. The nymphomaniac too, has received a no less share of our condolence; and instead of reasoning with her disorder, or holding up her case to the view of mankind as

an astonishing instance of lust and immodesty, we have used the lancet, and directed such general remedies and local applications as are calculated to relieve the disorder. The deluded maniac is often impelled, by an insatiable revenge, to imbrue his hands in the blood of his friend; but the time has passed by when for this he is punished with chains, a dungeon, or a gibbet. He is the subject of medical treatment, and as the light of science advances, and the mysterious connection between the body and the mind becomes better understood, it is not improbable that these diseases will be brought to bow before our art.

Without giving any other name to this disordered appetite which is the subject of consideration, than those commonly applied to it, I would suggest the propriety of making it a species of Good's genus *Dipsosis*, of the class *Celiaca*, and order *Enterica*. The symptoms of this disease are too well known, and have been by too many felt, to require a particular description. It has its seat in the stomach, and is no doubt produced by a perverted or disordered action of that viscus. One of the most common remote causes of intemperance, is the habit of relieving the anorexia felt before refection, with a glass of wine, spirits, or bitters. Those who eat much and exercise but little; those who are much exposed to the depressing passions; those who undergo great fatigue of body or mind, especially if unsuccessful in their pursuits; those who inordinately indulge the passions of anger, lust, and ribaldry; and those who habitually take tonic and stimulating medicines in spirituous and vinous menstrua, are very apt to become drunkards. The disease, or the tendency to it, is first perceived after being exposed to some of these causes. After an evening debauch, or what the patient would call a party of pleasure, he feels a want of appetite when he comes to his breakfast the next morning: this is readily relieved by a glass of bitters or a cup of very strong coffee, and the enfeebled stomach is goaded on to perform wonders in the eating way. The consequence of such exertion is an impaired digestion, and a heavy, horrible sensation is felt in the region of the stomach. To this is added an indescribably gloomy state of mind. The patient finds business burdensome and solitude insupportable. He flies to the tavern or the doctor, to his medicine chest or the brandy bottle, and soon obtains a temporary truce. A glass of toddy, punch, or sling, soothes his outraged stomach, and prepares him for dinner. If he have no dinner, another glass or two suits him as well, and what he fails in eating he makes up in drinking. It is unnecessary to pursue the history further. He rises the next morning with increased

anorexia, nausea, or vomiting. This is alarming, but is often immediately relieved with warm spiced toddy, peppermint, or capsicum and whiskey, and he is prepared to pass the day as he did the last.

In other diseases, palliatives are often found the best cures. Those medicines which relieve pain, and soothe the uncomfortable feelings of the patient, are sometimes admirably adapted to subdue his disease. Not so with the intemperate. Nothing so quickly relieves his anorexia, his gloomy feelings, and his gnawing pain, as the stimulating draught; but the relief is only temporary, and the remedy ultimately, by its indirect effects, increases all the symptoms of his disorder. The class of tonics, particularly bitters, with or without wine or spirits, so often prescribed in dyspepsia, I consider liable to the same objection. No method can be more certainly calculated to produce habits of inebriety than a long course of vegetable tonics in spirituous menstrua. Such prescriptions may give us a mushroom popularity, but by them we do our patients incalculable injury.

In every intemperate man there is an immutable association in his mind between stimulating liquors and the relief they afford to all the unpleasant sensations which I have described as forming his disease. To him the bottle is a catholicon; it relieves anorexia, gastrodynia, flatulence, nausea, vomiting, colic, and those gloomy feelings which are worse than all. It produces an instant change from pain to pleasure, from despair to hope, and transforms this thorny, rugged wilderness of a world into a paradise. In vain do we prescribe temperance to such a patient. He suffers what those who have not had his disease to the same extent cannot conceive. But his remedy is at hand, and he flies to it as to the only consolation left him. To cure him we must break up this association, and convince him, by actual sensations, that his remedy has lost its effect. We must likewise change the action of the stomach, and restore it to its healthy standard.

Some eight or ten years ago I read an anecdote by Dr. Rush, of his having cured a negro man of a taste for spirits by the use of emetic tartar. Similar facts are familiar to the profession, and it required no great powers of divination on the annunciation of Chambers's nostrum, and its effects on drunkards, to pronounce its active ingredient to be the tartrite of antimony. That remedy which can produce nausea, vomiting and purging, is no other than emetic tartar. But these are not its only effects. Possessing no positive taste itself, it communicates a disgusting quality to those fluids in which it is dissolved. I have often seen persons, who from taking our medicine in the form of vinum ant. could never afterwards drink wine. Nothing, there-

fore, seems better calculated to perform our indication of breaking up the association in the patient's feelings between his disease and the relief to be obtained from stimulating liquors. These liquors, with the addition of a very small quantity of the tartrite of antimony, instead of relieving, increase the anorexia, and quickly produces in the patient an indomitable repugnance to the vehicle of its administration.

I may be permitted here to remark, that while I claim no credit for originality in the application of our remedy, I had used it in this disease for some time before I saw the analysis of Chambers's remedy for intemperance by the Committee of the New York Medical Society. My method of prescribing it has varied according to the habits, age, and constitution of the patient. I give it only in alterative and slightly nauseating doses. A convenient preparation of the medicine is 8 grs. of tartrite of antimony dissolved in ℥iv. of boiling water—℥ss. of the solution to be put into a half pint, pint, or quart of the patient's favourite liquor, and to be taken daily in divided portions. If severe vomiting or purging ensue, I should direct laudanum to allay the irritation, and diminish the dose. In every patient it should be varied according to its effects. In one instance in a patient who lived ten miles from me, severe vomiting was produced, more, I think, from excessive drinking than the use of the remedy. He recovered from it, however, without any other bad effects. In some cases the change suddenly produced in the patient's habits has produced considerable lassitude and debility, which was of but short duration. In a majority of cases no other effect has been perceptible than slight nausea, some diarrhœa, and a gradual but very uniform distaste to the menstruum.

In answer to the question, will it always cure? my experience does not enable me to give a positive answer. That it will always when fairly tried, produce a temporary benefit, I have no doubt. I have as little doubt that the remedy in the hands of intelligent medical men, judiciously administered, and cautiously persevered in, will do more to eradicate intemperance than all the merely moral causes which can be brought to bear against the practice.

I fully agree with the Committee of the New York Medical Society, that such a medicine as Chambers's remedy for intemperance in popular practice must be attend with danger. Drunkards, more than any other class of men, are subject to chronic inflammations of the viscera; and, under such circumstances, powerful doses of the tartrite of antimony may do much mischief. Yet, even in these cases, we often prescribe the remedy in very minute doses, with manifest advantage. In a majority of drunkards, I should apprehend no very

serious consequences from emetic doses of the medicine. But this I do not think is the best method of administering tartar emetic, when we wish to change the morbid action of the stomach which solicits inebriation. It is an excellent maxim in medicine, that "chronic diseases require chronic cures," and it is probable that alterative doses of emetic tartar, administered in spirituous menstrua, will be found the best means of not only creating a distaste to spirits; but of removing those perverted actions of the stomach, which create so perilous a demand for the intoxicating cup.

Shelbyville, Tennessee, March, 1828.

ART. V. *Case in which Milky Urine was voided, terminating fatally in Tubercular Consumption.* By GEORGE W. STEDMAN, M.D. of St. Croix, Member of the Medico-Chirurgical Society of Edinburgh, and formerly President of the Royal Medical Society of Edinburgh.

TOWARDS the end of June, 1827, Thomas, a coloured lad about twenty-six years of age, was attacked with pain across the loins, and over the region of the kidnies, also with great weakness, and his urine exactly resembled thin milk in appearance. He was ordered to apply sinapisms to his sides, to use the tepid bath, and to take a dose of ten grains of Dover's powder every night. Under this treatment continued for several days, he seemed to get a little better, but the urine still continued of the same appearance.

I saw him for the first time on Monday, July 9th, (he had been previously attended by my father,) when I found him labouring under the following symptoms:—Pain across the loins, and over the region of the kidnies, increased by pressure—greater pain over the right than the left kidney—some numbness in both thighs, but greater over the left thigh—tongue clean, appetite and digestion good—skin cold—complains greatly of weakness, and is unable to work; his trade is that of a mason—his urine is white, and exactly resembles thin milk. It has an urinous smell, though not strong.

July 10th. I cupped him over both kidnies, but did not procure above five ounces of blood. He complained of great pain on the application of the cupping-glasses, but after the operation was finished he declared that he felt his sides easier.

As it appeared to me that chronic inflammation was going on in the kidnies, I directed him to apply two blisters to his sides as soon as

the wounds of the lancets were healed, also to drink plentifully of an infusion of flaxseed and cream of tartar, and to take five calomel pills every other night, until he had taken fifteen. I procured a portion of the urine, and tried the following experiments on it, chiefly with the view of observing if it contained much albumen and gelatin, as the disease seemed to bear some affinity to one described by the celebrated Dr. PROUT, which he calls a case of chylous urine, and which he considers as chiefly depending on the presence of albumen. As I have not got Dr. Prout's book, I have been obliged to trust to the scanty information concerning it, that may be gleaned from a review.

1st. The first experiment I tried was to heat some of the diseased urine to the boiling point. A white flocculent deposit, about equal to half the quantity employed, took place. Upon allowing it to cool and settle, the deposit gathered in the bottom of the glass, while the supernatant fluid, though still somewhat whitish, had a more yellow hue than the milky urine.

2d. As this might in part be "phosphate of lime thrown down by the ammonia resulting from the decomposition of urea,"* I decanted off the supernatant fluid as well as I could, and added to the thick residuum some muriatic acid. A fluid was immediately formed, while the albumen remained coagulated at the bottom of the glass.

3d. To a portion of the diseased urine I added a saturated solution of corrosive sublimate. This, after an hour, produced a copious white deposit, leaving the supernatant fluid thinner, but nearly as white as before.

These three tests seem conclusive of the presence of albumen.

4th. To a portion of the diseased urine I next added a strong solution of galls strained, (the proportion of ℥s. of galls to a pint of water.) This immediately threw down a copious flocculent precipitate, equal to about two-thirds of the urine employed. The supernatant fluid was thin and yellowish. As tannin precipitates albumen as well as gelatin, this test is not absolutely a proof of the presence of gelatin.

July 17th. My numerous avocations prevented me not only from continuing the experiments, but from seeing the patient again until this day.

He declared that he felt much relieved soon after he was cupped. The blisters were not applied until Saturday the 14th. They afforded him still further relief, and rose well. He says that he only feels the pain when he stoops; he had taken all the calomel pills; his bowels

* Henry's Chemistry, vol. 2d, p. 439.

were moderately open. His pulse is quick and strong, but his tongue is clean, and his skin cool. His countenance is better—urine still white. I directed him to continue to drink of the flaxseed and cream of tartar, and to take a calomel pill every morning and evening, slightly to affect his gums.

The quantity of urine he makes is about ℥lv. in twenty-four hours. He rises once every night for the purpose. This cannot be considered as a very great quantity, when we reflect, that according to physiologists, an adult in good health will make between three and four pounds in the course of twenty-four hours.

Another symptom of diabetes, the voracious appetite is wanting. He says that he relishes his food as much as ever, but that he does not feel any extraordinary degree of appetite. He does not seem to labour under any of the symptoms of indigestion.

24th. Since my last visit he has been progressively improving. His urine is less white than it was; it has lost in a great measure the milky appearance, and is assuming a yellowish hue. It has more of a urinous smell also.

The blisters having nearly dried, were kept open by blistering-plaster. Tongue clean, mouth not yet affected by mercury, though he has been taking the pills—pulse still quick and strong—countenance less thin—eye livelier. He says he feels altogether better. Treatment continued.

31*st.* Blisters at last allowed to dry—pain entirely gone—gums begin to be affected—skin and pulse natural—appearance good—countenance lively—urine natural and yellow. Ordered beverages of cold infusion of gentian, chamomile, &c.

About a week after this period he went out to work of his own accord, and continued well for nearly two months, when his old complaint again returned. He was again cured by following the same plan, except that he was not cupped, and took less mercury. He again recovered and went to work, at which he continued until about Christmas.

The latter part of November, and the whole of December were cold and damp, and there was a good deal of wind from the north and north-east, accompanied by frequent showers. This state of the weather probably affected him, for about this time he began to complain of pain in his chest, and cough. Blisters were applied and kept open, and as his pulse at the same time was rapid and strong, digitalis was given. Notwithstanding these remedies, he continued to grow worse; his cough increased; he began to spit a purulent matter, and he evidently became thinner and weaker every day. Under these circumstances

it was thought adviseable to send him to the neighbouring island of St. Thomas, to try the effects of a change of air. His complaint at this time was altogether pulmonary, and his urine was of a natural colour and consistence.

He went to St. Thomas in the month of January, 1828, but continued notwithstanding to get rapidly worse. He returned to Santa Cruz on the 13th of March, and died next day. I opened him on the 15th.

Dissection.—His body was excessively emaciated. The lungs throughout their whole substance were studded with small tubercles. These were further advanced in the right lung, many of them being about the size of peas, and filled with a thick caseous matter, that could easily be squeezed out. Though much gorged with blood, the lungs floated in water.

The mucous membrane of the stomach was very red and corrugated at the right extremity or *cul de sac*, and towards the *pylorus*, exhibiting the most unequivocal marks of chronic inflammation.

The *pancreas* was enlarged and hardened.

The *liver* seemed larger than natural, though its substance was not diseased.

The *right kidney* adhered so strongly by thickened cellular substance to the peritonæum that it could not be separated from it without great difficulty.

It was of the right kidney that he chiefly complained, and this appearance is a strong proof of inflammation in that organ. The substance of the kidney was firmer than usual, and there were several tubercles, varying in size from a pin's head to a pea, scattered through its substance. In the left kidney only a few tubercles were seen.

The disease I have now described has been frequently seen in this island, and in many cases does not prove fatal. I know the case of a gentleman, who after leaping from a great height, was seized with an acute pain over the region of the kidnies, which confined him to bed for many months. Soon after the accident he began to pass urine of a milky colour, and has done so ever since at intervals, especially after any unusual exertion. He was formerly an extremely strong and athletic man, but since the accident he has been of a very weak habit of body.

Can this disease be considered a species of diabetes? If so, may it not be called DIABETES LACTEUS?

MORGAGNI details a case in which milky-like urine was passed, Epist. 42, § 13, but this arose from calculi in the kidney and bladder, and therefore cannot be considered as at all analogous to the present case.

St. Croix, West Indies, April, 1828.

ART. VI. *On the Use of Blisters in Threatening Abortion, in Leucorrhœa, and in some Uterine Hæmorrhagies.* By SAMUEL JACKSON, M. D. of Northumberland.

THE empirical sect, says the elegant compiler of Roman physic, were accustomed to argue, that medicines were not invented by ratiocination, but, being once found, the reason was sought. *Repertis deinde medicinæ remediis, homines de rationibus eorum disserere cœpisse: nec post rationem, medicinam esse inventam; sed post inventam medicinam, rationem esse quæsitam. Celsi l. i. De* Εμπειρικους. This age of physic is now happily passed away, and the collective reason of all former generations, is rendered subservient to the invention of remedies. Hence it was foreseen by the prophetic genius of RUSH, that the time would come, when a student's labour would be as much expedited by *principles in medicine*, as that of children now is in learning to read by the help of an alphabet, instead of single or Chinese characters. It was an implicit reliance on the truth of this great man's propositions concerning the free use of reason in medicine, that first emboldened us to apply blisters for the purpose of preventing abortion.

CASE I.—The wife of Colonel J. of Sunbury, a village two miles south of Northumberland, we found on our first visit, May, 1813, covered with a copious crop of measles; hard, dry cough; frequent puking, or violent efforts to puke; continual severe pain in her back; frequent and regular pressing labour pains; some little of the leucorrhœa nabothi; hard, frequent pulse; considerable fever with dry skin. She was six months advanced in pregnancy, and excessively alarmed lest she might miscarry and be thereby brought into danger. The *os uteri* was not open, and therefore an effort was to be made to quiet the pains. She was bled largely, perfect rest enjoined, and we presume that opium was given, but cannot certainly recollect, nor is it material to our present purpose, as may be seen in the sequel. A blister was forthwith placed on her breast, and, at the same time, one on her back, as low down as possible.

The next morning we found her very comfortable, both in body and mind; the pain in her back had gradually subsided as the blister drew, and so certainly was her relief derived from this remedy, that she said, it had "absolutely charmed away the pain." She had no return of it whatever, she was soon well, and went her full time without further trouble. No person could be more delighted with a remedy; she considered it as having been the safety both of herself and her child.

So reasonable did this method of treatment appear, and so clearly indicated by the exigencies of the case, that we did not know for several weeks, being then rather a novice in practice, but that it was in common and systematic use. Whether we learned it from conversation, from books, from lectures, or whether the indication arose spontaneously, on contemplating the necessities of the case, we certainly do not know. We cannot recollect having seen it recommended in books, and therefore venture to obtrude some notice of it on the numerous readers of this Journal. Though we have often used it with decisive advantage, and never with any attendant evil, or, in any case, without complete success, yet we have been principally moved to publish this notice at the present time, by its decisive effect in the following instance.

Case II.—About two months since, we were sent for to visit the wife of P. L. in Sunbury, but not being able to attend for some time, we found, on arriving at the house, that our friend, Dr. Price of that town had been called. The patient, in the sixth month of her pregnancy, had made a misstep the day before, from which she suffered some pain in her back during the whole night; in the morning she walked out, but found herself worse for it, and, upon returning home, she was seized with bearing pains, followed by such a discharge of water as led her to suppose that the membranes were ruptured: the pain increased, with frequent gushes of water, and by the time Dr. Price had arrived, it was excessively violent, coming on at regular intervals of about five minutes and reaching down the thighs; she had also a severe strangury which obliged her to rise frequently and pass a few drops of urine with great pain. Dr. P. had directed an enema of laudanum, half an ounce, which she had retained without any alleviation, though at least an hour and a half had now elapsed.

The *os uteri* was, as we believed, a very little patulous, there had been some sanguineous show, and after the most careful inquisition, we presumed that the membranes had given way, and the water passed off. The uterus was in its proper site, the pains did not seem to affect it very considerably, and therefore even if abortion were to be considered as finally inevitable, these were not the proper pains to produce it, and hence they were to be subdued if possible. Her pulse was too feeble to admit of bleeding, and moreover she was of a peculiar constitution, and seldom profited by the loss of blood. Solid opium was now given in doses of five grains, with the hope that in conjunction with the enema already taken, it would subdue these pains and prepare the system for the supervention of genuine labour. But these potent doses produced very partial, and only temporary re-

lief, and did not fail to bring on severe vomiting, which always renewed the pressing pains. Two indications therefore arose—to subdue the pains, and to compose the stomach. The black drop and paregoric elixir she abhorred, and hence we continued to give solid opium by the stomach, and laudanum by injection; but no sooner did the pain abate under these anodynes, than a dreadful vomiting ensued, which constantly renewed it. We endeavoured to keep the system under the steady influence of opiates, being careful to administer some as soon as the effects of the preceding dose began to subside into languor and sickness; we tried to compose the stomach with ether, elixir vitriol, lupuline, ginger tea, an article we have found of great service in the nausea left by opium. But all these applications were vain; either vomiting or pain, and sometimes both, were contiually present, and the state of the poor suffer was truly alarming. We must confess that in such a case the acetate of morphia, or the denarcotised laudanum ought to have been used, but we had rather unjustifiably neglected to procure these articles, having always found an acetic preparation on the principles of the *black drop*, to answer as a succedaneum to common laudanum.

Here let us observe that we should have applied a blister to the lumbar region at first, had it not been that we looked upon abortion as inevitable, and considered that genuine labour would soon supervene. But now, after a struggle of two days and nights, without any advantage being gained, we proposed to our colleague the application of a blister, and he readily consented, though he acknowledged the practice to be entirely new to him. Just in proportion as the plaster drew, the pain receded, and was felt no more after the blister was fully drawn. So complete was the cure that a tremendous fire the following night, which suddenly consumed a large wooden barn within twenty perches of her house, and alarmed her excessively, did not renew the pains. Even the strangury was entirely removed by the blister, and did not return. She has continued well ever since, and she now feels the fœtus as vigorous as before. She was of opinion that at least half a gallon of water was gradually discharged in the course of the first two days. That the liquor amnii may pass off, and the fœtus survive, is probably incontrovertible, but it certainly occurs so seldom as to be justly considered a very rare exception to the general course of things. That it occurred in this case we cannot by any means aver; the lady may have been deceived in the quantity passed, and the water may have come from one of those collections which authors describe as sometimes existing between the membranes.

It might hence be presumed that blistering the back would prove a

useful remedy in preventing habitual abortion, but we have tried it in one instance only. Mrs. W. our near neighbour, miscarried with her third child in the summer of 1826. She had gone to her seventh month, and for two months previous she had been troubled with frequent slight hæmorrhagies, with pain in her back. These were removed by venesection, rest, and opium; but they were followed by a debilitating discharge of a thin, acrimonious, fetid fluid. This again was cured by a topical bath of cold salt water, assisted with bark and wine. She had each of these diseases three or four times alternately before abortion took place, but as she was a very delicate, nervous woman, and greatly alarmed at the mere suggestion of a blister, it was thought best to omit this remedy.

Her labour was attended with copious flooding, and she continued in a state of debility for at least eight months, with pain in her breast and weakness of her back, with frequent little hæmorrhagies, which were succeeded by an offensive, ichorus leucorrhœa. But bark with iron, and frequent blisters to the back, which she now submitted to with fortitude, restored her so far that her catamenia returned in the spring, and she forthwith became pregnant. Towards the fifth month, however, her old complaint of hæmorrhage with pain in the back returned, and threatened to prove as troublesome as before; but having now learned the comfort to be derived from blisters, she had one drawn, and it afforded immediate relief. The complaint returned three times, and each time was removed by the blister alone; even venesection was dispensed with in consideration of her peculiar stamina. During her last month she was troubled with frequent bursts of water, and as we presume, of the *liquor amnii*, but she went her full time, and was delivered of a healthy child. Her troubles, however, did not end even here, as her old complaint, the fetid ichorous leucorrhœa, returned in a few weeks. This was soon cured by a blister, aided by the topical bath of cold salt water, and the former invalid now enjoys excellent health.

Let no one suppose that we produce this remedy as one that is applicable to every case of abortion, or as one that must infallibly succeed, even in promising instances; the intelligent reader can easily call into mind the various circumstances which must render this, as well as every other preventive, utterly useless, and even inapplicable.

It has been said that blisters are to be avoided as far as possible in all cases of pregnancy, because they are particularly apt to produce strangury in this state of the body, an affection that might be attended with dangerous consequences. But we cannot forbear asserting, that we have never hesitated to apply them on account of pregnancy,

and that we do not recollect having ever seen a strangury from them under such circumstances. This exemption may be owing to the care we have very generally had of giving parsley tea or some diuretic during the whole time of their drawing. Last summer a lady in the ninth month of her pregnancy, suffered severely with œdematous legs, and having heard of blisters in such cases, she proposed the remedy herself; we tried to dissuade her from using them, but she did it clandestinely, and had great cause to rejoice in her temerity.

In *leucorrhœa* a blister is generally our first remedy. We prescribed it with success when a student of medicine, sixteen years ago, and never failed to profit by it since. Nothing can possibly be more consistent with all the known principles of medicine, nothing more *physiological*, nothing more agreeable even to the intuition of ignorance; it removes the internal inflammation, diverts the humours or rather the irritation, into another channel, and thus affords an opportunity for the just operation of local and general tonics. We are therefore surprised to find it so little known that we do not recollect any writer who mentions it, except Dr. CHAPMAN in his therapeutics, and to him we presume it is rather a new medicine, as he does not notice it in his edition of Burns. We have sometimes used a repetition of blisters, sometimes maintained a discharge for many months with savin cerate, and not unfrequently have directed cups to the back in the intervals of blistering. All these methods may be tried in succession, and as we venture to predict, with great success.

In this disease there is always some irritation in the uterus or vagina, the effect of cold, of external violence, of metastasis, of repelled discharges: this irritation ought to be diverted forthwith from the mucous membranes, and this indication may often be fulfilled by bleeding at the arm, by a dose of salts, by rest with refrigerant diet, and by various other gentle means. But here lies one of the misfortunes of physic; the practitioner is seldom called till the discharge has actually taken place, or even continued for weeks or months. And here by the way we cannot refrain from observing that this is one of the innumerable instances in which nature does nothing but mischief. An inflammatory state of the whole system from cold or from some violent concussion of the body, is quickly attracted to the lumbar region, the weak part in many women; this would soon wear itself out, or might be removed by the gentlest means, but *nature*, not being *medicus expectans*, throws it on the uterine system, and thus establishes a disease, which, with its consequent predisposition, is apt to prove an occasional trouble to the poor woman all the rest of her life. This is one of the works of *nature*.

The disease is very generally preceded by pain in the back, with a sense of weight about the pelvis, and a febrile state of the whole system: now, if patients who are subject to the disease would attend to these premonitions, and take rest in a recumbent posture, use blisters or cups, a saline purge, low diet, the mucous secretion might be anticipated, the irritation diverted to the skin, and the lining membrane be thus prevented from acquiring the habit of discharging the general disease. All tonic injections are too often useless, and are sometimes dangerous by throwing the disease on some internal part, and it is rather a hopeless business to attempt a cure through the medium of the stomach, unless this organ with the whole system be clearly in a state of pure unirritated debility; hence in patients who are not yet broken down, we seldom use any other tonic than a profusion of cold salt water to the affected region. It is always some comfort to save the stomach and to cure by remedies directly applied; we then know their efficacy with the same certainty that we do the operation of a knife or cautery. The great utility of counter-drains has been known since the days of Hippocrates, and we must confess they are a very favourite part of our private apparatus. In our early practice we were possessed of a strange prejudice to the use of compression in the treatment of ulcers, and therefore often established an issue in their vicinity which was constantly found to promote the cure; and even now, when we use compression with the utmost freedom, and can join most heartily in its commendation, we sometimes find a savin cerate issue to expedite the healing process, and to prevent those eruptions which occasionally take place under the bandage.

We cannot quit this subject without adverting to one point in the treatment of leucorrhœa, which, if neglected, may lead an incautious practitioner to discredit the blister as well as every other medicine. There may be an organic disease of the uterus or vagina, and therefore we ought, before prescribing any remedies whatever, to make a careful examination. In one case of our early practice, we used blisters for several weeks, but, upon examination, the incurability of the disease was found to depend on a fatal cauliflower excrescence. In another case, the woman had been attended by several physicians without any relief, and was nearly exhausted by a long-continued discharge; upon examination a small polypus was found, which being removed, the patient soon recovered her former health. These cases are not offered as new, but merely as useful reduplications which cannot well be omitted in the course of composition.

From the well known effects of blisters in arresting slow internal hæmorrhagies, they might be expected to afford relief in the discharge

which has obtained the absurd name of *menorrhagia lochialis;* but we have never been under the necessity of testing them in this disease. In a few cases, however, in which there was a profuse and fetid leucorrhœa for some weeks after delivery, this remedy, as we have hinted above, has often afforded immediate relief. In one instance, a single blister performed a permanent cure, and in no case did a second, third, or fourth application fail of eradicating the disease.

Professor Chapman, in his edition of Burns, recommends a blister to the sacrum in dysmenorrhœa; and this we are induced to mention, because we have not found this remedy noticed by any other authority. We have not tried it, having always succeeded pretty well with paregoric elixir and camphor; but it appears so rational, and comes from such high authority, that we could not fail to use it with as much confidence as we give jalap to purge or ipecacuanha to excite emesis. Nor can the intelligent reader fail to derive from it, an argument in favour of the practice here recommended in other diseases of the uterine system. In the mean time, however, we have some suspicion, that, in dysmenorrhœa, the blister may have fallen into disuse, since we find that Dr. Dewees does not notice it in his system of midwifery, at least not in the second edition. It is true that in many cases of this disease there is a morbid membrane which must be cast off at the expense of some pain, and here a blister might prove an interruption to the salutary process; but, again, it might be inquired whether cupping and blistering, in the intervals, would not be likely to eradicate the disease which forms this preternatural substance. Dr. Chapman states, however, that there is a great aversion to having epispastics applied to this part in private practice; we have certainly not found this to be the case in our own circle.

Dr. C. also recommends this remedy in *amenorrhœa*, and surely a more promising one cannot be found for this troublesome disease; but particularly for that form of it which is called *suppression*, as this is probably often attended by some local disease which the blister may remove.

There is yet another uterine affection for which we have used epispastics with decided advantage; we mean that abnormal state of the genital organs, which often takes place before the entire cessation of the menses. In these cases, if the system be pretty robust, this remedy will hardly ever be necessary, as bleeding from the arm and other antiphlogistic means will amply suffice; but when the patient is sinking into chronic debility, with too frequent or too copious hæmorrhagies, it is necessary to seek for other relief. When a woman feels the complaint impending, a few cups or a blister with rest in a ho-

rizontal posture, will avert the various evils of flooding and of all its customary remedies, as sugar of lead, cold applications long continued, digitalis, large doses of opium, as recommended by Professor Hamilton, all which tend to break down the constitution of the unhappy patient, and to lay the foundation of permanent debility and broken health. Even when the discharge has actually commenced, if it be yet very moderate, and there be no organic affection, the cups or a blister, or both in succession, will, according to our limited experience, prove the most safe and certain remedies. Dr. Dewees speaks of dry cups to the back and blisters to the thighs. We presume that the scarificator will afford an additional relief, and the blisters be found more efficacious if applied to the back. It has just occurred to us, however, that dry cups may be applied when there is no skilful person to use the cutting instrument. In every neighbourhood, some of the good women ought to be instructed to perform the operation of cupping.

Patients must be very greatly debilitated to admit of tonics during the presence of these hæmorrhagies, nor can any of the more powerful ones be given in the intervals. If the disease can be diverted from the uterus to the back, and thence attracted out of the body, the constitution will recover through its own energies; or if it prove unequal to this task, the appropriate tonics can be given with more safety, in consequence of the existing issue. We lately read some author who directs that cold chamomile tea be given freely during the intervals; either this writer has discovered some new property in the medicine, or the experience of others must be set at nought. We have known it to increase the discharge, and even the good women themselves are apprised of its emmenagogue properties. Heberden says, that it undoubtedly possesses this virtue with respect to particular women, for he has known more than one in whom it always brought on some degree of hæmorrhage, at whatever time of the month it was taken. *Comm. Chap.* 62. We fear that very many tonics have the same effect in these particular cases; and hence we have presumed, that, while the general system is under their corroborant influence, their evil effects on the uterus may be diverted to the back, and conveyed out of the body. The health and strength thus acquired by the system generally, cannot fail of imparting to the uterus its proper proportion. As far as we are authorized to speak from experience, it is presumed that a small blister kept open with savin cerate for many months, is the most useful drain in these cases. If it be properly managed, and run freely, it gives very little uneasiness, and this little is more than balanced by the comforting security it affords.

We do not pretend that cases occur very frequently in which such apparent severity of treatment is necessary; but some patients we have seen, who, having been unavailingly treated with astringents and tonics, were sinking into dropsy, but were soon restored to health by the means here recommended.

We are not unaware that issues have latterly fallen from their just rank; but this has not happened so much from a change of theory as from our neglecting to theorise with sufficient freedom. Almost all physicians, from HIPPOCRATES to the time of HOFFMAN, were more or less infected with the doctrines of the humoral pathology, and supposed that morbid matters were attracted from all parts of the system by these artificial emunctories; but now, when such extravagances of this doctrine have been justly exploded, there is still a most powerful reason for the use of issues, altogether independent of that derived from experience. *Irritation* is more certainly diverted from its morbid course than humours, and is more completely under the influence of a mysterious attraction, than acids or alkalies, poisons or febrifacient miasmata diffused in the mass of blood, were even supposed to be, by any disciple whatever of the older pathology.

ART. VII. *Experiments on the use of the Cupping-glass and Ligature in Poisoned Wounds.* By ARISTIDE RODRIGUE, M. D.

THE preceding number of this Journal contains some highly interesting observations and experiments on the efficacy and modus operandi of cupping-glasses, in preventing and arresting the effects of poisoned wounds, showing that their action does not depend upon the removal of the atmospheric pressure. The subject has created such general interest, and is of so much importance in a practical point of view, that the following experiments, instituted about the same time that Dr. PENNOCK was engaged with his, will probably be thought worthy of publication. The poisons that I employed appear to have been more active preparations than those used by Dr. Pennock, and our experiments differ in my having employed the ligature, principally to counteract their effects; our results however, coincide perfectly.

My first investigations were made with the view of ascertaining the strength of the poisons, and from these it appeared that two grains of strychnine, deposited in the cellular tissue on the outside of an animal's thigh, would destroy life in about five minutes; and that one

drop of concentrated prussic acid applied in the same manner, produced the same effect in from ten seconds to one minute; so concentrated indeed was the acid, that even the inhaling its fumes was sufficient to throw the animal into violent convulsions, and destroy life.

The following appear to be legitimate conclusions, from my experiments.

1st. A vacuum caused over a part under which a poison has been deposited, will prevent such a poison from producing its usual effects so long as this vacuum exists.

2d. All constitutional symptoms immediately disappear on the establishment of a vacuum over the poisoned surface, and by removing the poison by an incision, the life of the animal may be saved, provided too great a quantity be not previously absorbed.

3d. The glass does not act by extracting the poison, as may be seen from the experiments with strychnine.

4th. The ligature, and the glass not exhausted, are equally as effectual, in cases of poisoned wounds, as the exhausted glass.

Experiments 10th, 11th, and 12th, with prussic acid, and 5th with strychnine, show, that by alternately relaxing, and tightening the ligature at intervals, an animal into which a poison has been introduced, may be alternately affected and relieved by permitting the poison to be absorbed by degrees; the quantity absorbed, being too small to destroy life, is so changed by the fluids, that the system, which possesses the power, either of discharging or decomposing it, does not sink under its effects.

Nearly the same was observed with the cupping-glass, (see Experiments 8th, 15th, and 16th,) but the ligature possesses this advantage over the glass, that of allowing the more gradual introduction of the poison, and, besides the powerful irritation produced by the ligature, may also have a tendency to counteract, in some degree, the effects of the poison.

It will also be seen, from Experiments 17th, 18th, and 19th, that prussic acid does not act upon the system through the medium of the nerves.

The following experiments were performed in the presence of Drs. Robinson, Finley, and many other gentlemen, with prussic acid, prepared by distilling prussiate of mercury in a small glass tubulated retort with muriatic acid; a glass tube intervening between it and the receiver. The first part of the tube was filled with carbonate of lime, to prevent any muriatic acid from passing over; the other part contained dry muriate of lime, to absorb the moisture. The receiver was placed in a mixture of ice and salt, and the acid passed over into it by a moderate heat.

The first two experiments were made principally to test the strength of the acid.

Experiment 1*st.*—A small incision was made on the outside of a full grown rabbit's thigh, and a single drop of the acid introduced into it. In ten seconds, violent convulsions came on, attended with profuse discharges of urine, fæces, and saliva. The muscles of the thorax, and larynx especially, were much convulsed, occasioning great difficulty of respiration. The rabbit died in one minute after the application of the poison. In this case, and indeed in all the others, one of the first symptoms of the action of the poison, was an extreme dilatation of the pupils.

Experiment 2*d.*—One drop of the acid was applied to the tongue of a full grown cat. It was immediately placed on its feet: in fifteen seconds it fell on its side, convulsed, and died in one minute after the application of the poison, with all the symptoms enumerated in Experiment 1st.

Experiment 3*d.*—A full grown rabbit being properly secured on the table, one drop of the acid was introduced under the fascia, on the outside of the thigh. In fifteen seconds, symptoms of convulsions appearing, a piston cupping-glass was applied over the wound; the convulsions ceased almost immediately, and the breathing became more natural. In ten minutes it sat up, and eat of some cabbage leaves which were placed before it. The cup now accidentally fell off, and the convulsions immediately returned, but were again removed by the reapplication of the glass. Being absent for about half an hour, on our return we found the glass had fallen off, and the rabbit dead.

Experiment 4*th.*—This was a very young rabbit; it died in ten seconds after the application of the poison to the thigh, as in the above experiment, and before we could apply the cup.

Experiment 5*th.*—A drop of the acid was applied, in like manner, to the thigh of a full grown rabbit. In twelve seconds convulsions came on, but were speedily relieved by the cupping-glass: in five minutes it began to walk about the table. It was now placed on the floor, ran about, with the glass attached to its thigh, and ate freely of some cabbage leaves. At the end of two hours the cup was removed, and the wound washed. Three hours afterwards, when it appeared perfectly well, we permitted it to inhale the fumes of the acid, and it died.

Experiment 6*th.*—This was the fellow of the rabbit mentioned in Experiment 4th: it died in twelve seconds, before we could render it any assistance.

Experiment 7*th.*—In this experiment, a small piece of the muscle

on the outside of the thigh was removed, and the acid placed in contact with it: the cup was applied before any symptom showed itself. The animal appeared perfectly well; but, in about twenty minutes, while we were engaged in the following experiment, the cup fell off, and before it could be reapplied the animal died.

Experiment 8th.—This was a full grown rabbit. The acid was applied in this experiment on a wounded muscle, as in experiment 7th, the cupping-glass, however, was not applied until convulsions came on, which the application suspended immediately; the cup having remained for fifteen minutes, we wished to see if by removing it the convulsions would return; we found that the cup had been off but a few seconds, when the animal fell on its side violently convulsed; but the reapplication of the glass again relieved it. We continued alternately removing and applying the glass for a considerable time, and the animal was successively affected and relieved; and in three quarters of an hour the animal was perfectly restored.

Experiment 9th.—The acid was applied to this experiment under the fascia of the leg below the knee; a ligature was placed above loosely, in order to be tightened at pleasure; as soon as convulsions appeared the ligature was firmly drawn; twenty minutes after, the ligature being removed, convulsions returned, and before it could be reapplied the rabbit died.

Experiment 10th.—A drop of acid was applied in the same manner as in experiment 9th, and a ligature loosely placed above the knee; as soon as convulsions appeared the ligature was tightly drawn, and allowed to remain so for five minutes; it was then relaxed; and in twenty seconds convulsions returned, but were again arrested by tightening the ligature; this process of alternate tightening and loosening the ligature was continued for at least an hour. At the end of which time it was removed; the animal appeared recovered, and was set at liberty. Two hours after it was perfectly well.

Experiments 11th and 12th.—These experiments were repetitions of experiment 10th, and were attended with similar results.

Experiment 13th.—To test the strength of the acid a drop was placed on the tongue of a small cat: in one minute it died in convulsions.

Experiment 14th.—A wound was made on the outside of a kitten's thigh, and a drop of the acid introduced; immediately after pressure with a glass, not exhausted, was made around the wound; the cat died in three minutes in convulsions. In this experiment the pressure around the wound was *unequal.*

Experiment 15th.—The acid in this experiment was applied as in

the above; immediately after *equal* pressure was made around the wound by means of a glass not exhausted. In the course of this experiment, the glass was frequently removed, so as to allow the poison to enter the system gradually. In forty minutes, the animal appearing well, was destroyed by a second application of the poison.

Experiment 16*th.*—This was a repetition of experiment 15th, and was attended with the same result.

Experiment 17*th.*—I laid bare the crural nerve in a cat two months old, and separated it from the surrounding parts for near one inch and a half. A piece of tinfoil was placed underneath the nerve, and the acid frequently applied; in two minutes symptoms of convulsions came on; in six minutes were at their height; and in fifteen minutes the animal recovered. In this experiment a little cellular membrane adhered to the nerve, which was probably the cause of the animal's being affected.

Experiment 18*th.*—Having laid bare the right par vagum in a full grown and large rabbit, and carefully stripped it of all cellular membrane, integuments, &c. tinfoil was placed underneath the nerve, the acid was applied frequently for fifteen minutes without effect; in twenty minutes the animal was set at liberty; at the end of an hour it appeared well, and was destroyed by the application of the acid to its nose. Blood drawn from the jugular vein coagulated in five minutes.

Experiment 19*th.*—Laid bare the right par vagum, as in Experiment 18th, and frequently applied the acid without effect; the crural nerve of the opposite side was next treated, as in Experiment 17th. No effect was produced by the application of the acid. I should judge, from the above experiments, that prussic acid has no direct specific action on the nerves.

Experiment 20*th.*—An incision, half an inch in length, was made on the outside of a full grown cat's thigh; two grains of strychnine were introduced in the incision, under the cellular membrane, and the wound closed by a couple of stitches, in one minute the eyes became glassy, and the pupils dilated; in two minutes twitchings of the leg in which the poison had been deposited; in four minutes convulsions came on; in five minutes it died convulsed, passing its urine and fæces involuntarily.

Experiment 21*st.*—The same quantity of strychnine introduced, in the same manner as in Experiment 20th, into a young cat. As soon as it appeared uneasy, the cup was applied, and allowed to remain

on one hour; at the end of which time, the cup was removed, the poison taken out, and the glass reapplied and allowed to remain for ten minutes, when it was again removed, the wound carefully washed, and the animal set at liberty. Four hours after it was seen apparently well.

Experiment 22d.—This was a full grown rabbit. Two grains of strychnine were introduced, as in Experiments 20th and 21st. An exhausted cupping-glass was immediately applied; in twenty minutes no effect being produced the glass was removed; and in two minutes the animal fell on its side in convulsions; the glass would have been immediately reapplied, but owing to the valve getting out of order it was not replaced until the animal appeared nearly dead; as soon, however, as the glass was reapplied, its breathing, which had nearly ceased, immediately returned; in fifteen minutes it stood on its legs, and appeared lively; in thirty minutes after, that portion of the skin, immediately in contact with the poison, was sliced off; the wound washed, and the animal set at liberty; in a few minutes it began to run about the yard, and eat grass. One hour after convulsions suddenly came on, and before the glass could be reapplied, the rabbit died.

Experiment 23d.—The same quantity of strychnine was introduced in the same manner as in Experiment 22d, and the animal left to its fate. The animal died in seven minutes. This experiment was made for the purpose of comparison with Experiment 22d.

Experiment 24th.—As in the above experiments, a like quantity of strychnine was introduced in the same manner, and a ligature was placed above the wound, firmly drawn. In twenty minutes, no effect being produced, the ligature was loosened and allowed to remain so for fifteen minutes. When slight symptoms of convulsions appeared the ligature was immediately tightened. In ten minutes after, the ligature was again loosened, and as soon as convulsions appeared, was again tightened. This alternately relaxing and tightening the ligature, was continued for near one hour, when the poison was removed by slicing off the skin in contact with it, and carefully washing the wound. Two days after, I saw the rabbit perfectly well.

Experiment 25th.—This experiment was made for the purpose of comparison with Experiment 24th. The same quantity of poison was introduced as in that experiment, and the animal left to its fate. In four minutes convulsions came on, when the poison was removed with a piece of the skin. The wound was also washed; in ten minutes the rabbit died.

ART. VIII. *On the Medicinal Properties of the Myrica Pennsylvanica.* By WILLIAM M. FAHNESTOCK, M. D.

THE very signal advantages that I have derived from the concrete wax of the myrica in severe dysenteries, and the desire that its properties may be more fully investigated, induce me to offer a few remarks on the article.

Early in the month of July, 1822, the dysentery appeared in Hanover and Paxton townships, of Dauphin county, and continued through the extensive valley of Kittaninny, carrying off its victims with unparalleled mortality. Its violence, and resistance to the common medical treatment, rendered it truly embarrassing and alarming. The distress in some households and sections of the country was almost incredible; whole families and neighbourhoods were, in a very short period, prostrated with the disease, and perished without any relief.

From the year of 1819, fever prevailed annually during the summer and autumn. In July 1822, the weather became excessively warm and dry; vegetation was parched and perishing; and the earth literally baked; during this time the dysentery supplanted the fevers, and continued until after some heavy rains in August, when it disappeared, and intermittents, remittents, and bilious fevers again prevailed.

The disease made its attack very suddenly, generally commencing with violent pain in the stomach and abdomen; restlessness; severe retching, and frequent small evacuations; stools variously mixed, and of different consistence—often bloody, and in some instances nearly pure blood, but generally of a frothy or slimy mucous appearance, resembling the washings of meat, or the sanies of ulceration. Slight fever accompanied the incipient stage, but excitement of the general system increased with the irritation of the bowels, and after a few days was succeeded by prostration, which usually terminated the existence of the patient.

It would be irrevelant to my present purpose to enter into a discussion of the etiology and pathology of the disease, as it would lead me into disquisitions too diffuse to serve any beneficial purpose on this occasion; I shall therefore proceed immediately to detail the facts connected with my experience with the myrica.

Following the practice of SYDENHAM, emetics were administered, under the impression that the disease was of a bilious character, or intimately connected with the fall epidemic, but without deriving the

anticipated effects; while, in many instances, they seemed to aggravate the symptoms. Blood-letting was inadmissible, from the weakness of the pulse and prostration of the system. It may be asked, why could not venesection be practical to arrest its progress in the forming stage, as it has been stated that the excitement increased with the irritation of the bowels? To what I have said it is only necessary to add, that the disease was very sudden in its attack, and fully formed before the practitioner was called to prescribe, and the system in such a relaxed state as to preclude it, as was proved by experience. This fact is observed in many epidemics, and the late Dr. Rush particularly remarked it in his notes on Pringle. "The system, not only in dysentery, but in malignant fevers, is sometimes so suddenly and completely prostrated, as not to react after the use of depletory remedies. In these cases life can be saved, only by the powerful stimulants." Leeches I have no doubt would have proved highly beneficial; but in the country, for want of proper attention, we are deprived of those valuable auxiliaries, and have to depend on general means. Cathartics were then chosen—calomel and castor oil—the sulphate of soda—the sulphate of magnesia—and the oleaginous mixture, as gentle purgatives, to procure natural stools, but generally had to be abandoned, and astringents and tonics substituted, to sustain the strength of the system. Calomel in small doses, and the antimonials as recommended by Sir George Baker—Fairplay's favourite prescription of ipecacuanha and laudanum—Cleghorn's union of calomel and opium—Akenside and Richter's plan of sudorifics; for which calomel, opium, and ipecacuanha were used; Dover's powders—James's powders—and the spt. mindereri, with spt. nitr. dulc. and laudanum. The vegetable alkali—the alkali and magnesia with tinct. thebaic.—the cretaceous julep, and even the most powerful astringents, as alum, kino, and logwood. The warm bath—laxative and anodyne injections—fomentations—rubefacients—and blisters, were variously modified, and successively used with varied, but ill success. The much-vaunted stibium specificum, made public by Dr. Young, and known to be the vitrum antimonii ceratum, so much extolled by Sir John Pringle, was also tried. The acids recommended by Pringle, and supported by the ancient authority of Degnerus and Dolœus, were employed; and the vitriolic solution of Dr. Mosely; as were also ripe acid fruits; not upon the erroneous hypothesis of Tissot, to neutralize the poison in the stomach, but upon the evidence of their being so successful in restoring the Swiss regiment in the south of France, who subsisted entirely upon grapes; and being a practice partially supported by Hoffman, who recommends

the Rhenish wine. But fruits and acids, as Dr. Clark justly observes, when continued, I found to bring on a return of the disorder. The nux vomica, agreeably to the prescription of Consbruch,* a German writer of considerable eminence, was used with temporary advantage; it seldom failed to suspend the disease, but, like Bergius, I generally found it to relapse. Failing in this, to which I was much prepossessed by its success with Hagstrom in Sweden, and the strong commendations of Hufeland, who had an extensive experience of its good effects in the epidemic at Jena, connected with the flattering confirmatory proof of its adaptation to the disease of this climate by my kinsmen, Dr. Samuel Fahnestock of Lancaster, Pa.† I then recurred to mercury, as introduced by Boyle, and subsequently used by Cleghorn, Clark, Bogue, Balfour, &c. to produce ptyalism, which promised a valuable remedy, but required more time to develope its influence than the debility of the patient would endure.

At this conjuncture, baffled with the usual remedies, I was induced to make an experiment with a domestic remedy, on the recommendation of several gentlemen, who had seen its beneficial effects, in our army stationed at Lake Erie, in 1813, where the shrub abounds. On inquiry, I find that it is very much used in dysenteric affections among the common people on the borders of the lake, who procure it for commerce.

The information I have of its first use is entirely traditionary, I therefore cannot vouch for its correctness. Attention, it seems, was first attracted to it at the time the dysentery prevailed so extensively among the soldiers in that vicinity. Several invalids were placed in a small cabin, and restricted to a very abstemious regimen. In the absence of the matron, one of them succeeded in crawling to the closet, and got a myrtle candle, with which he gratified his palate by eating of it, and in a very short time was evidently relieved; then giving it to his companions, they were equally benefited. Upon this result, the concrete wax was distributed to the soldiers, and they speedily recovered.

I am unacquainted with the character the disease assumed on our frontier, yet we have reason to suppose it to be similar to that which

* Klinisches Taschenbuch für Practishe Aertze.

† I have since discovered that it is sinking in the estimation of the German writers, who have noticed it particularly, and that L. J. Schmidtman, who used it in the epidemic at Melle, a town in the province of Osnaburg, acknowledges that "it sometimes allayed the pain, though in few individuals it increased it."

usually prevails in armies quartered in low and damp situations, and exposed to great vicissitudes of temperature, and to fatigue.

At the time I received the myrtle-wax, I had several cases under the ordinary treatment, and I determined to make a trial of it without delay. For this purpose I powdered it, and ordered a tea-spoonful to be given in simple syrup, or mucilage of gum Arabic. In many cases it acted like a charm, and in others, after the repetition of the same quantity, several times, I invariably found the patient improving, and, in a very short period, perfectly relieved. I have a record of upwards of sixty cases, in which it was administered with uniform success, and without a single failure, where a prudent regimen was continued.

A few of the cases I shall here introduce, to give a brief picture of the disease, and the effects of the prescriptions. It is proper for me to state, that I premised its use by calomel in large doses, twenty or thirty grains, and castor oil or the oleaginous mixture, and frequently used the latter alternately with the calomel. I gave this medicine, under the impression that the liver was considerably involved in the derangement of the viscera, with a view to its producing its peculiar impulse to the hepatic apparatus, and to correct its secretions. I must acknowledge, that I not only attach much importance to the use of the calomel, but ascribe many of the beneficial results to its administration. In some cases, where there was much agony, I united a small quantity of opium with the concrete wax, made into pills with mucilage and a few drops of ol. cinnamomum.

Case I.—H. C. A young woman of intemperate and dissolute habits, was severely attacked with the dysentery. It was ushered in with excruciating pain in the abdomen, and she suffered extremely with tormina, and sickness at stomach. Pulse frequent—skin dry—tongue slightly furred—much thirst. Ipecacuanha, as an emetic, was prescribed, and afterwards calomel, gr. xv. to be followed in an hour and an half by ol. ricini ℥j. The cathartic operated, but instead of relieving the patient of tenesmus, it seemed to aggravate the symptoms and increase the inclination to stool. The discharges were frothy, of a mucous consistence, and streaked with blood. I ordered the sudorific powders of calomel, opium, and ipecacuanha. On the following morning, I found the skin still dry, the medicine not having produced any diaphoresis—the pulse weak and flagging—the evacuations more frequent and fœtid, and the system much prostrated. Stimulants were already required—for this purpose, the Columbo was given in decoction, together with a mixture

of calcined magnesia and laudanum, and anodyne enemata. An epispastic was applied over the abdomen, and afterwards the extract of Hæmatoxylon Campechianum. These failing to afford relief, the pilula hydrargyri, and the unguentum, were brought into requisition; but the exhausted state of the system forbade persevering in so tardy a remedy: resort was then had to brandy toddy as an incitant. At this state, I received and made the first use of the myrtle-wax. Its happy effects were soon developed by the suspension of the distressing symptoms, and an improvement in her condition. Under a gentle tonic treatment she recovered rapidly; but returning to her former abandoned dissipation, she relapsed, and in despite of every precaution, indulged in large potations of ardent spirits: inflammation spread to the peritoneum, and proved fatal.

Case II.—Mrs. A. who had been labouring under a complication of diseases—umbilical hernia, frequent uterine floodings, but now a few months advanced in pregnancy, and just recovered from a severe attack of bilious fever, which had reduced her to a mere skeleton, became the subject of this malignant scourge. On the 31st of July, I was called to see her again. The disease had made its appearance the evening previous, and she had passed a very restless night; complained of much alimentary distress and severe pain in the abdomen and back; frequent inclinations to stool, and but trifling evacuations mixed with blood. I ordered a small dose of calomel and the oleaginous mixture, which expelled a large quantity of mucus, blood, and indurated fæces. The griping abated somewhat, and the patient was apparently at ease for several hours. In the afternoon, the pain and straining efforts returned, attended with fever. The alkaline mixture with laudanum was given; and early in the morning the myrtle-wax in pills: after which she improved, and, by the aid of tonics, was able in a few days to be out of bed; but very imprudently washed in cold water, and was immediately affected with violent pains in the back and region of the uterus: severe gripings ensued, and large quantities of blood flowed from her, accompanied by grinding pains. Before I arrived, the fœtal membranes had ruptured and the waters discharged. On examination, I found the os tincæ very rigid, and but little altered from its natural state. With the alvine evacuations, large quantities of blood came per vagina, and produced much debility and faintiness. Opium and ipecacuanha, and opium and the acetate of lead, with the usual applications, were used in vain.

My friend, Dr. Reily, saw the patient in this state at 10 o'clock that night: his opinion of the case gave me no expectations of its re-

sulting favourably. On an examination, about two hours afterwards, I discovered that the os uteri was considerably more dilated and yielding. At this time she became very sick at stomach, and, during some efforts to vomit, the fœtus, about one inch and a quarter in length, was expelled, and the patient quite exhausted, was threatened with the most unpleasant and fatal consequences, by continued alimentary and uterine discharges. Camphorated julep and wine whey were prescribed, but only seemed to be adding more mischief. In this embarrassing state, and quite in despair, I resorted to the powdered concrete, hoping that its tranquillizing virtues would have some influence in allaying the irritation; which, indeed, exceeded the most sanguine predilections that were indulged. Irritability was calmed, she reposed, and finally recovered.

Case III.—T. M'Q. a robust labouring man, of short stature, subject to frequent attacks of hæmorrhoides, was seized with nausea and sickness of stomach, pain in the head, fever, and frequent small stools of a greenish-yellow, feculent matter, mixed with a great deal of blood. Precluded from using any active cathartics, I prescribed a small dose of calomel and ol. ricini. The sickness of stomach was relieved, and large quantities of fœtid sordes evacuated. Severe pains and griping continued, and the flow of pure blood from the hæmorrhoidal swellings, which burst by the violence of the tormina, and irritation of indurated fæces. The pilulæ myricæ were given with the most beneficial effects, and from that moment he began to recover.

Case IV.—I was called at 9 o'clock in the evening of the 29th July, to visit Miss C. daughter of Mr. L. L. aged sixteen years, of fair and ruby complexion, and uniform healthy constitution. She was suddenly seized with spasmodic pains in the stomach, which soon extended to the intestines, and showed itself in the most distressing tenesmus, and serous discharges mixed with blood. The pulse frequent; face flushed; skin hot and dry; and much thirst. Ipecacuanha and calomel, ää gr. xij. were combined and administered, to evacuate the stomach and produce a free discharge from the bowels. It had the desired effect: but the disease increased in violence, and I was again called to see her at 2 o'clock in the morning. The febrile symptoms continued unchanged; the evacuations very frequent, and attended with excruciating pain and tension of the abdomen. So frequent indeed were the discharges in this case, that, without exaggeration, they may be said to have been uninterrupted; and which required the patient to be supported in a position to aid its accommodation, without subjecting her to the torture of being moved so fre-

quently. The ol. ricini and tinct. thebaic. were ordered, but were not retained by the stomach; the saline mixture with laudanum to divert the action from the interior to the skin; and anodyne enemata, and fomentations to the abdomen were also used. The diaphoretic was rejected, and recourse was then had to the myrica, half a drachm was given in mucilage, and it acted like a perfect charm: in ten minutes her distress was nearly suspended, and on the repetition of the medicine she went into a sound sleep, and remained undisturbed until daylight. Indeed the change was so great and instantaneous, that serious apprehensions were entertained of gangrene having taken place. She awoke relieved from disease, and gradually recovered.

Case V.—N. B. an aged negro, who attended to my menial concerns, and lived alone in a small cabin, in an unfrequented alley, was missed from his usual avocations for two days. I called at his habitation to inquire after him, as he was addicted to great intemperance at times. I found him prostrate in bed with the dysentery, and quite alone, where he had been two days without taking any thing whatever, and unable to get from his cot to void his filth. He had suffered severe pain, and large discharges of sanies and dark blood; and now was reduced to the lowest state—pulse feeble and intermitting; sky dry, and stools very offensive. All evacuants were inadmissible; the concrete wax was immediately given, in conjunction with brandy toddy. The purging was checked, and his nearly exhausted system resuscitated, and he finally recovered. Some months afterwards he expired in the street, of apoplexy.

Case VI.—H. B.'s family, of Susquehanna township, were all affected with the disease, which threatened an irreparable affliction, in consequence of his two children, aged four and six years, refusing all medicine, and rejecting every deception to administer it secretly. I then gave the parents the concrete wax in the cake, and recommended to them to eat of it in presence of the children; who, conceiving it to be a luxury, became impatient to have it, and ate of it very freely; and like the preceding case, without any preparatory evacuations, were perfectly restored.

Case VII.—C. K. Esq. a highly respectable, and one of the wealthiest citizens of the interior of Pennsylvania, was subject, annually, to a periodical diarrhœa during the summer months, and which was so severe at times as to incapacitate him from attending to his numerous and important duties, and obliged him to use opium constantly during that period. He applied to me to make a trial of the myrica in his case. After evacuating the bowels with calomel

and rhubarb, I gave him the pilulæ myricæ, which he took morning and evening for a fortnight, and afterwards occasionally. About two months after discontinuing its use, he informed me that he had not been so well and regular in his alvine evacuations for many years.

I deem it unnecessary to swell the pages with more cases, which would only present a repetition of similar effects. The medicine was equally efficacious in the hands of my uncle, the late Dr. John Fahnestock, of Carlisle, Pa. who procured a small portion from me, and used it in the same epidemic, which prevailed with great violence in Cumberland county.

Gratified by these results, I made it the subject of particular and anxious inquiry; but in all my researches I have discovered but little notice of its medicinal qualities. M. Alexandre* remarks, "that the liquor in which the grain has been boiled, and from whence the wax is procured, having been poured out, and evaporated to the consistence of an extract, he discovered checks the most obstinate dysenteries." In Dr. Thacher's Dispensatory, Dr. James Mann is mentioned as having used the powdered bark of the root as an emetic, and deems it equal to the ipecacuanha. And Dr. Benjamin S. Barton, in his *Collection for an Essay towards a Materia Medica of the United States*, under the section of Astringents, remarks:—"The Myrica cerifera, or Candleberry myrtle, is unquestionably a *very powerful astringent*, and as such has been employed by the country practitioners of the United States. A decoction of the bark of the root is employed sometimes alone, and sometimes in combination with the bark of the root of the persimmon, or with the bark of the black alder. The simple, or the compound decoction of the myrica, has been used with much advantage in dropsical affections succeeding to intermittents, particularly in the peninsula of Delaware, where dropsies in various shapes, are, perhaps, more common than in any other part of North America, within the same latitudes. The root of the myrica has likewise been found useful in the treatment of *hæmorrhagies from the uterus*, &c. It was remarked by an old physician, Dr. Mathew Wilson, who had much experience in the use of this vegetable, that it often acted as a purgative." Charles Louis Cadet has written a very interesting memoir on the natural history, &c. of this plant, in the Annals de Chimie, vol. 44; and Dr. John Bostock has instituted an extensive chemical analysis of the product, an account of which can be found in Nicholson's Journal of Natural Philosophy, Science, and the Arts, vol. 4.

* History of the Academy of Sciences.

What is the precise modus operandi of the myrica in dysentery, I am not prepared to say with sufficient confidence. It certainly possesses a very considerable astringent quality, and in an eminent degree that of a narcotic or anodyne; which was evinced in almost every case by immediately calming the morbid excitement. To the taste, the grain is astringent and somewhat styptic, making a very sensible and lasting impression on the fauces, and has a pleasant balsamic odour. My experiments with the article do not allow me to state, with any assurance, what part of the plant or grain possesses the most active qualities; having used the concrete only, I am unable to make any comparisons. It is only recently that I first received a specimen of the shrub, which was through the politeness of my friend Mr. Henry Buckler, of Harrisburg, on his return from a tour to the lakes during the past summer.

M. Alexandre supposes its astringent quality to reside in the kernel, or the covering which surrounds the seed, which gives a very fine lake colour, in the fresh state; and this property he attributes to gallic acid.

If the virtues of the wax be owing to gallic acid, and if it receives it from the pellicle or the substance of the kernel, we have reason to believe that it may exist to a much greater extent in the leaves and bark; which deserve particular investigation. The property supposed to be gallic acid, may be found to be a gallate combined with a new basis; or, peradventure, a proximate principle. Perhaps it may be discovered to contain a portion of hydrocyanic acid, and the narcotic or anodyne quality of allaying irritation be owing to the presence of this sedative principle. This seems to receive support from an instance of death, mentioned to me by Dr. James T. Boyd, of Virginia, occurring in a person who ate the leaves of the shrub.

Whether the wax alone had any influence in the cure of the disease, I do not pretend to determine. It may be an emollient, demulcent, and have some agency as a bland oil in sheathing the irritated surface of the mucous membrane; but I conceive there are other condiments that will answer much better should we obtain the astringent principle separate from it, unless it be fairly established that the wax has an efficient operation, as is sometimes ascribed to it;* and particularly in the preparation of the oxydum antimonii vitrificatum cum cera, already noticed.

* Isbrand de Diemerbroeck, Professor of Anatomy at Utrecht, in his account of the fever and dysentery that prevailed in the army during the seige of Lovain, 1635, and particularly in the camp before Schenk-Fort, states the white wax to have been highly successful when all the ordinary remedies had failed; and quotes, as preceding authorities, *Diascorides, Valleroila, Quercetus,* and *So-*

The concrete is efficient only, I believe, in proportion to the quantity of the green astringent principle that it contains. It may be necessary, more explicitly to remark, that the species *Pennsylvanica* was used in my experiments; and I take this opportunity of acknowledging the politeness of Dr. W. P. C. Barton, in aiding me more precisely to determine this point. After having used all the concrete that I received from Erie, I procured some from New Jersey, which did not act with as much promptness and success. It will be an important object to determine the respective qualities, and make a strict analysis of the different degrees of active property each may contain. The Jersey wax is yellower, more granulated and unctuous, bearing a greater resemblance to the bee's wax, and possesses much less astringency: probably it is obtained from the *gale*, which chiefly flourishes in that state.

I regret exceedingly, that my opportunities have not enabled me to come to more satisfactory conclusions, and of making more positive deductions. Notwithstanding my firm belief of its usefulness, I refrain from urging it with that stress which usually accompanies the introduction of a favourite remedy. In truth, I have made but one step towards developing its medicinal virtues, and however well sustained by an extensive experience of its efficacy, I wish a better knowledge of the plant, a more satisfactory investigation of its comparative affinities and greater collateral support. Without incurring the imputation of idle enthusiasm, and dogmatic arrogance, which too much characterises modern propositions and opinions, I would urge it with that reserve which becomes philosophic truths. Should the experiments be deemed worthy of repetition, by which alone the reputation of the article can be established, I think it of much importance that a distinction of the species should be taken into consideration, and the variable strength and consequently the active quality of the concrete.

lenander. Professor Coxe, to whom I am indebted for the reference to this information, suggests a course of comparative experiments with the animal and vegetable products, to determine their respective merits.

ART. IX. *On the treatment of Chronic Dysentery, with Reports of Cases treated in the Pennsylvania Hospital.* By J. K. MITCHELL, M. D. one of the Physicians to the Pennsylvania Hospital.

THE disease concerning which I beg leave to present the following reports, is one generally considered difficult to cure. After having made three voyages into tropical regions, and tested the various modes of treatment for chronic diarrhœa and dysentery suggested by authors, I came to the conclusion that but little success was attainable in their management. Chronic dysentery is the chief scourge of those who resort to tropical harbours not productive of yellow fever: numbers perish with it, and of those who return a great many continue to suffer even for years under this painful and obstinate disorder. Anxious to find a remedy for a disease of which the pathology seemed settled, but for which no very effectual means of cure were known to me, I inquired of our most eminent practitioners; most of whom admitted the obstinacy of this malady, and the general uncertainty of the result of the best conducted treatment. As they agreed in the commendation of farinaceous diet, and cathartics of a mild character, occasionally combined with mercurials and opiates, a treatment long followed in my tropical practice with no very satisfactory results, I was not much encouraged in the search for remedies. Turning for instruction to the physiological school of medicine, I endeavoured to treat chronic dysentery by the greatest possible simplification of diet, and finally reduced my patients to the use of simple gum-water without sugar. The experiment failed. Continuing the mucilaginous diet, the blue pill in small and infrequent doses was used. To my surprise and pleasure, the cases, under this treatment, began to wear a more favourable aspect, and were speedily cured. After varying the experiments in other cases, I became assured that most of the old and obstinate cases of inflamed or even ulcerated intestines, constituting chronic dysentery, are remediable by the exclusive use of *mucilage without sugar*, and of the blue pill given in from three to five grain doses, *not more frequently than once in twenty-four hours, nor less frequently than once in forty-eight hours.* Some cases, of course, required depletion by venesection, &c. and some occasionally demanded the use of means to unload the intestines; but commonly the mucilaginous diet and blue pill afforded almost immediate relief, and soon effected a cure: such a cure too, as withstood the subsequent use of strong food, and much exposure to the weather.

Just at the time when I had attained to confidence in the treatment

above described, I entered on duty at the Pennsylvania Hospital, and took charge of the case of Augustine Cardien, who had been for a short time before under the use of blue pill, chalk julep, and a generous diet. In the beginning of July, 1827, he was confined to mucilaginous diet, and blue pill with ipecacuanha. For the further treatment of this case, I refer to the report of my friend, Dr. Washington, resident physician of the hospital.

The result of this case led his colleague, Dr. Charles Mifflin, to put under a similar treatment the remaining cases of dysentery, viz. those of David Myers, J. Gardner, and J. Cummings, the details of which he has furnished.

The admission of six seamen, simultaneously affected with dysentery, afforded a good opportunity of trying the treatment without opiates. In the perusal of the report of Dr. Fox, who conducted these cases to a speedy and perfect cure, the admirer of simple and rigorous practice will no doubt take pleasure.

Case. Augustine Cardien, a French seaman, of small stature, sanguineous temperament, and of a naturally vigorous constitution, was admitted into the Pennsylvania Hospital, June 20th, 1827, with chronic diarrhœa. Subsequently to an attack of scurvy during the first part of the year 1825, this diarrhœa had supervened, and had since continued more or less to the date of his admission, without so far diminishing his general strength as to prevent an attendance upon his duties, excepting for the last three months; in which time, though wholly incapacitated for active exertion, yet he had not been confined to his bed. His diarrhœa not being attended with febrile symptoms, or abdominal uneasiness of any consequence, he was immediately placed upon the blue pill, and the chalk mixture was administered for the purpose of restraining the frequency of his discharges. As his general strength was very much enfeebled, and his diarrhœa not considered of that kind which demanded antiphlogistic measures, he was directed port wine, beef, stale bread, rice and milk. On the ninth day after admission, the above treatment not appearing to benefit the patient, he was directed to preserve his fæces and urine in separate vessels for inspection, and they were examined on the succeeding day: his alvine evacuations were turbid and thin, and of a dun colour, and resembled the washings of meat, in which flocculi of matter are very perceptible; his urine was scanty, but muddy, and exhibited a large deposit of lateritious sediment. His diet was now restricted to the mucilages of gum Arabic and of the slippery elm, and he was directed a pill composed of three grains of the mercurial blue mass, and half

a grain of ipecacuanha every night: his wine, and every thing else previously allowed, being discontinued. On the third day after this change, his stools had altered considerably in character, having become of a yellow colour, and though liquid, no longer watery. His urine was less muddy, and his general health had evidently improved. On the fourth day his stools had become decidedly thicker in consistence, and much diminished in frequency. His diet was increased by allowing him gruel made of ground rice. On the fifth day his stools were moulded, though soft, and he stated that they were firmer in consistence than they had been for almost two years past. On the seventh day his diet was still further increased by the addition of a few crackers, and he still continued to improve. On the ninth day the brick-dust sediment being still copious in his urine, *soda water* was directed. His stools were observed to be less firm than previously, but of a browner or more natural colour. His general appearance was improved, and his strength increased; his tongue moist and pretty natural; his pulse seventy, and regular. On the eleventh day his stools had again become liquid, though not watery or serous. As it was supposed that this unfavourable change might have been produced by a too great increase of his diet, the crackers were discontinued. The soda water was also omitted. On the thirteenth day his bowels had become quite loose. His pill of blue mass and ipecacuanha was now omitted, and he was ordered one-fourth of a grain of nitrate of silver in mucilage of gum Arabic daily. On the sixteenth day he had become still worse: in fact, he had almost completely relapsed. The nitrate of silver was now discontinued, and he was again directed to live exclusively on the mucilages of the gum Arabic and of the slippery elm. On the eighteenth day the patient having somewhat recruited, he stated that his relapse a few days past had been occasioned by the secret use of some wine that his friend had brought him. On the twenty-fourth day his stools had become pretty natural in colour and consistence. His urine was also much improved, and his strength greatly increased. On the twenty-fifth day, his diet, hitherto restricted to the mucilages, was increased by allowing him a small quantity of jelly and three crackers daily. On August 3d, the thirty-second day, the patient was a second time very decidedly convalescing, but his bowels still bearing with great difficulty any increase of nourishment, he was directed five grains of the blue pill every other night. The blue pill was continued for upwards of two weeks, and then omitted, as his convalescence was so striking that he did not appear to require its further employment: salivation

not being desired. His diet was gradually increased, and he was discharged cured on the 5th of September, about two months and a half after his admission.—*Reported by J. Washington, M. D.*

Case I.—David Myers, a sailor, was admitted on the 8th of September, with chronic dysentery. The precise length of time he had been sick, not now remembered. Three grains blue mass were ordered by Dr. Mitchell, every other night, and the patient was confined to a strict mucilage diet. During the time he remained in the hospital, he took no other medicine, and was discharged cured, having continued here eighteen days. It may be proper to state, that his disease was cured in less time; but he did not wish to be discharged before he tried a stronger diet than the mucilage: on the twenty-sixth of the month, he was discharged cured.

Case II.—J. Gardner was admitted, with dysentery, on the 21st September, combined, as it was at first thought, with rheumatism. Blue mass, p. guaiac. and opium were directed, and continued for a few days without relief. The blue pill was then resorted to alone, and the strictest attention paid to his diet, which consisted of gum Arabic. In a short time he entirely recovered. As he feigned a pneumonia, he continued in the house some time longer. He was waiting for a man to die, who was far advanced in phthisis, and whose clothes he was to receive. The day after the consumptive man's death, the pneumonia suddenly left him, and he took his discharge on that day, the 1st November. His dysenteric disease, however, was entirely removed long before that date.

Case III.—J. Cummings was admitted on the 1st of November, with dysentery, which he had contracted in July, and which, during that time, had rendered him very uncomfortable. He was compelled to get up often, eight or ten times in the night, and suffered no slight degree of pain: his discharges were mucous, and streaked with blood. Five grains of blue pill were given him each night, and he was not permitted to touch any thing but gum Arabic in solution. On the third day after admission, he was compelled to go to stool but twice, and he was up but once in the night, and with much less pain. Each day he improved, and on the tenth of the same month he was discharged well.—*Reported by Charles Mifflin, M. D.*

The six seamen whose cases follow, were admitted into the Pennsylvania Hospital on the afternoon of the 17th of May, 1828, with dysentery of five weeks' duration. They arrived a few days previ-

ous to their admission from a port in the West Indies, after a voyage of near four weeks, and attributed their sickness to the warm weather and bad water.

Case I.—Joseph Mitchell, aged thirty-eight years, seaman.—*Symptoms.*—Has had four slimy stools since morning—some pain in the bowels—vomited several times to-day—pulse seventy-five—tongue natural—skin moist.—*Treatment.* Ol. ricini, ℥j. statim; pil. cœrulæ, grs. iij. at night. Diet restricted to gum Arabic water and slippery elm tea.

18*th*, 9 A. M.—Pulse, tongue, and skin natural—one stool since oil operated. Directed grs. iij. pil. cœrulæ to be taken at bed time, and to continue diet as yesterday.

19*th*, 9 A. M.—Three stools in last twenty-four hours. *Diet.* Tapioca and one cracker, in addition to slippery elm tea and gum Arabic water.

20*th*, 9 A. M.—Three stools, nearly natural; no pain. Continue diet as yesterday. Pil. cœrulæ, grs. iij. at bed time.

21*st*, 9 A. M.—One stool, natural. *Diet.* Tapioca, boiled milk, crackers, and chicken soup, prepared by boiling the chicken in barley water.

24*th*.—Allowed the diet of the house.

26*th*.—Discharged well.

Case II.—Samuel Amee, aged twenty-five years, seaman.—*Symptoms.*—Has had six slimy stools since morning—tormina and tenesmus—pulse ninety, full and compressible—tongue red and rather glossy.—*Treatment.* Ol. ricini, ℥j. statim; pil. cœrulæ, grs. iij. at night. Diet restricted to slippery elm tea and gum Arabic water.

18*th*, 9 A. M.—Two stools since oil operated, these more natural. Continue diet.—7 P. M. Tongue less red—pulse seventy-seven—one stool since morning. Continue same diet; pil. cœrulæ, grs. iij. at bed time.

19*th*, 9 A. M.—No stool since evening—tongue and pulse natural. *Diet.* Tapioca and one cracker, in addition to slippery elm tea and gum water.

20*th*, 9 A. M.—One stool, natural—no pain. Diet same as yesterday. Pil. cœrulæ, grs. iij. at night.

21*st*, 9 A. M.—One stool. *Diet.* Tapioca, boiled milk, cracker, and chicken soup.

24*th*.—Allowed the diet of the house.

26*th*.—Discharged well.

Case III.—Andrew Amee, aged twenty-years, seaman.—*Symptoms.*—Has from fifteen to twenty stools in twenty-four hours, (has had fifty.) These are bloody and slimy and accompanied with tor-

mina and tenesmus—tongue red and glossy—pulse fifty-five—skin moist.—*Treatment.* Ol. ricini, ℥j. statim; pil. cœrulæ, grs. iij. at night. Diet restricted to slippery elm tea and gum Arabic water.

18*th*, 9 A. M.—Five stools since oil operated; these less bloody and with less pain. Continue diet.—7 P. M. Two stools since morning, more natural—pulse seventy-eight. Pil. Cœrulæ, gr. iij. at bed time. Continue diet.

19*th*, 9 A. M.—Three stools since evening—pulse eighty—tongue less red. *Diet.* Tapioca and one cracker, in addition to slippery elm tea and gum water.—7 P. M. Not so well—has had five bloody and slimy stools since morning, with more pain—pulse ninety-two—tongue red—skin hot and dry—pain in the head and bowels.—*Treatment.* V. S. ℥xij. Diet restricted to slippery elm tea and gum water.

20*th*, 9 A. M.—Better. Two stools, slimy but with very little blood, and attended with less pain—pulse, skin, and tongue more natural—blood taken last evening was sizy. Diet same as last night.—7 P. M. One stool, which was more natural and contained no blood. Diet as before. Pil. cœrulæ, gr. iij. at bed time.

21*st*, 9 A. M.—One stool, almost natural—no pain. *Diet.* Tapioca and one cracker, in addition to slippery elm tea and gum water.

22*d*, 9 A. M.—Two stools, natural. *Diet.* Tapioca, boiled milk, crackers, and chicken soup.

24*th*.—Diet of the house.

25*th*.—Discharged well.

Case IV.—Josiah Phillips, aged eighteen years, seaman.—*Symptoms.*—Has twenty slimy stools in twenty-four hours—tormina and tenesmus—some pain upon pressure on abdomen—tongue red at edges, and slightly furred in the centre—skin hot and dry—pulse 120.—*Treatment.* V. S. ℥xij. Ol. ricini, ℥j. statim. Pil. cœrulæ, gr. iij. at night. Diet restricted to slippery elm tea and gum water.

18*th*, 9 A. M.—Much better—pulse more natural—skin relaxed—little pain in bowels—four stools since oil operated, these with much less pain. Continue diet. 7 P. M.—Two stools, these more natural. Diet as before, Pil. cœrulæ, gr. iij. at bed time.

19*th*, 9 A. M.—One stool, without pain, nearly natural—pulse 75, skin pleasant—tongue cleaner in centre. Continue diet, and in addition, allowed tapioca and one cracker.

20*th*, 9 A. M.—One stool. Continue diet as yesterday. Pil. cœrulæ, gr. iij. at bed time.

21*st*, 9 A. M.—One stool, natural. *Diet.* Tapioca, boiled milk, crackers, and chicken soup.

24*th.*—Diet of the house.

26*th.*—Discharged well.

Case V.—Robert Billing, aged thirty-two years, seaman.—*Symptoms.*—Has from fifteen to twenty very slimy stools in twenty-four hours—tormina and tenesmus—vomited several times to-day—tongue red at edges, furred in the centre—pulse 92—skin hot and dry.—*Treatment.* V. S. ℥xij. Ol. ricini, ℥j. statim. Pil. cœrulæ, gr. iij. at night. Diet restricted to slippery elm tea and gum Arabic water.

18*th*, 9 A. M.—Five stools since oil operated—less pain—tongue rather cleaner—pulse 75. Continue same diet. 7 P. M.—One stool since morning, more natural. Pil. cœrulæ, gr. iij. at bed time. Continue diet.

19*th*, 9 A. M.—No stool—tongue cleaning—pulse and skin natural. *Diet.* Tapioca and one cracker, in addition to slippery elm tea and gum water. 7 P. M.—One natural stool—no pain. Diet as before.

20*th*, 9 A. M.—One stool. Diet as yesterday. Pil. cœrulæ, gr. iij. at bed time.

21*st.*—One stool. *Diet.* Tapioca, boiled milk, chicken soup, and crackers.

24*th.*—Diet of the house.

26*th.*—Discharged well.

Case VI.—Charles Cushing, aged twenty years, seaman.—*Symptoms.*—Has from twenty to thirty slimy stools in twenty-four hours—pain in bowels on pressure—tormina and tenesmus—pulse 86—tongue very red and glossy—skin dry.—*Treatment.* V. S. ℥xij. Ol. ricini, ℥j. statim. Pil. cœrulæ, gr. iij. at night. Diet restricted to slippery elm tea and gum Arabic water.

18*th*, 9 A. M.—Four stools since oil operated—tongue and pulse more natural—less pain. Continue diet. 7 P. M.—One stool, more natural—very little pain. Ordered Pil. cœrulæ, gr. iij. at bed time. Diet as before.

19*th*, 9 A. M.—One stool, no pain—tongue improving—pulse and skin natural. *Diet.* Tapioca and one cracker in addition to slippery elm tea and gum water.

20*th*, 9 A. M.—One stool, nearly natural. Diet as yesterday. Ordered, Pil. cœrulæ, gr. iij. at bed time.

21*st*, 9 A. M.—One stool, natural. *Diet.* Tapioca, boiled milk, chicken soup, and crackers.

24*th.*—Diet of the house.

26*th.*—Discharged well.—*Reported by G. Fox, M. D.*

ART. X. *Case of Scirrhus contracted Rectum; connected with Scirrhous of the Uterus and Pregnancy.* By Dr. M. H. DE LEON, of Columbia, South Carolina.

ON the 2d of March, 1828, I was requested to visit Mrs. B. a lady about twenty-five years of age, and the mother of two fine, healthy children. The history I received of the case was as follows: She had been unwell since the 25th December, but capable of managing her domestic concerns till within the last two months. At this period she found much difficulty in evacuating her bowels, when assisted with strong purgative medicine. Heretofore she had considered her constipation to be the effect of pregnancy, but for the month preceding the time of my being called to her, she had not been able to evacuate the fæces at all. Her urinary discharge was much obstructed, with great pain and tenesmus in passing water, which she could only accomplish by placing her body in a particular position. These symptoms had been gradually increasing for some time.

Her complaint had been treated as "constipation of the bowels, connected with pregnancy." Predicated on this view of it, she had, by the advice of her medical attendant, taken much purgative medicine without producing any other effect than distressing tenesmus: but latterly she had been constrained to desist from their application, and abandon even the mildest laxatives, as they never failed to create more misery than they relieved. In this distressing dilemma, she sought relief, from her pain alone, in large doses of laudanum, which rendered her comfortable for the time. On asking if she had ever tried enemata, she informed me the attempt had frequently been made, but they could not be forced into the bowels. Her general health at this period appeared but little implicated. She had a good appetite, but as the distention of her bowels had become painful, she restrained it, and only indulged her inclination for food, with rye mush and new milk.

From this detail of symptoms, I was at once inclined to the opinion that there existed either stricture of the bowel itself, or some tumour pressing so upon the rectum, as mechanically to obstruct the passage of the fæces.

Her husband and herself being both intelligent, I had no trouble in convincing them that a manual examination was necessary to determine the nature of the case. After examining the abdominal tumour externally, and finding it very voluminous and uniform, and not being able to trace the fundus of the uterus, making the necessary prepara-

tion, I placed her in a proper position, and passing my hand, well lubricated, into the vagina, it was soon opposed by a very firm body, which I traced to be the fundus of the uterus. That viscus must have been retroverted, by her account, at least nine or ten weeks before the period alluded to; as she then considered herself between the fourth and fifth months of utero-gestation, having felt her child, but observed at the same time that she had borne two children, but the movement she then experienced was very unlike that she felt in her former pregnancies. Many of the rational symptoms of pregnancy being absent, a very strong doubt was then created in my mind whether the uterus contained a child or some foreign body, the indication being the same in either case. I proceeded to restore the uterus to its natural situation, in which I succeeded, after a few patient trials. The vagina was greatly relaxed, owing to a profuse mucous discharge, which occurred about the period of her last catamenial discharge. Enjoining the most exact repose in a horizontal posture, she very soon passed urine freely.

My next care was to examine the rectum, which I did by passing into it a flexible catheter of large size, armed with a syringe. But on attempting to pass the fluid out of the syringe into the bowel, I found it to be impossible. I made another trial with a wax bougie, with as little success. The patient being now much fatigued, I deferred any other mode of examination at that time, but prescribed a mild sudorific draught at bed time, and a gruel diet.

My next examination was made by the introduction of one finger into the vagina and another into the rectum. This examination instructed me conclusively, that the intestinal tube had undergone a change of structure; which fact was fully corroborated by the finger in the vagina, as far as it could reach. The capacity of the bowel below the stricture, was greatly enlarged; that above it, much narrowed, grasping the tip of the finger firmly as a hard ring. A soft membrane, which I concluded to be the mucous membrane of the bowel from above the seat of disease, protruded through this ring; not unlike what occurs frequently in protracted dysentery and diarrhœa. This membrane was very yielding, forming a kind of pouch, and moving readily before the finger. The nature of the case being clearly shown, I did not disguise from the husband her danger, and candidly prognosticated what I believed would be the issue. But leaning on "hope" and her "youth," he could not persuade himself that the prospect was so unpromising.

The paroxysms of pain were at this juncture severe, referred altogether to the epigastric region, attended with nausea and occasional

vomiting. I prescribed such palliatives from time to time, as each indication seemed to me to require, and I used a flexible bougie of proper size for one week perseveringly, finding not the smallest advantage gained, I next resorted to the tallow bougie with as little success, and lastly, to the metallic. Finding my efforts totally unavailing, and the accumulation in the bowels painfully increasing daily, and now producing violent spasm, I proposed a consultation with my intelligent friend, Dr. Edward Fisher, Sen. who politely attended. After carefully considering the case, he remarked to me that the bougie was the only course which promised any benefit under such unpromising circumstances, and advised a perseverance in its application, increasing their size as any advantage might be gained. This course was unremittingly pursued for two weeks longer without the smallest amendment that I could discover. In this truly distressing conjuncture, distressing beyond the power of description, from the insupportable accumulation in the bowels, her agony amounted to torture from this cause alone, superadded to which, she suffered under retention of urine.

Perplexed, and perceiving no alternative for the relief of her agonizing sufferings, I again urged the necessity of another consultation, (Dr. Fisher being then absent.) Two gentlemen of standing in their profession were called in; they attended, and after detailing to them the whole progress of the disease, with the treatment, and making a manual examination in their presence, I proposed to divide the membrane, (before alluded to,) with a bistoury carefully introduced along the forefinger, on the ground that we should at least have an outlet for the fæces, which the membrane obstructed as a valve, and which accumulated above it. By this expedient I did not hope to cure the disease, but only to empty the bowels, and to render the remnant of life supportable for the time she did live; at least it seemed to me to be giving the only possible chance of living, as my patient had not evacuated the alvine canal in nine weeks!

The gentlemen, however, objected to my proposition, on the score of consequences which might succeed to the operation. I was therefore overruled in the performance of it, but confess, to my mind it appeared the only plan by which an outlet could be given to the fæces, which at this crisis had become so burdensome as to render respiration exceedingly difficult, and make life itself so insupportable as to cause her more than once to pray for death, as the only probable release from misery. Nausea and vomiting were now almost incessant. I yielded to the opinion of my friends to a perseverance in the use of the "bougies," which, after one week longer, it became impossible

to introduce, from the strong and unyielding contraction of the sphincter ani muscles, insomuch that with all the address I could bring to my aid, I could not introduce the tip of my little finger into the passage. From this time she began to sink; her sufferings were more acute than I thought could possibly be endured; vomiting was nearly constant, and when not vomiting, she complained greatly of the child in utero distressing her by its movements, (for at this juncture her pregnancy was unequivocal.) In a day or two after, the vomiting became unremitting, stercoraceous matter was mixed in the contents of the stomach, and five or six hours after this appeared, labour-pains came on, and in three hours, (with very little comparative suffering from this cause alone,) I delivered her of a well-formed fœtus of between the sixth and seventh month. The secundines followed soon after the birth of the child; the uterus contracted well above the pubes —the whole loss of blood did not exceed one table-spoonful. The child had been dead but a short time; the abdomen appeared more voluminous after the birth of the child than before; stercoraceous vomiting still continuing, she died in a few hours.*

Dissection, twelve hours after death.—Having obtained leave to examine the body of Mrs. B., I proceeded to the examination in the presence of Dr. B. F. Harris and my students.

The body, when stripped of its clothing, exhibited a spectacle uncommon in a woman of low stature and delicate frame. Its circumference, carefully measured from the crista of one os ilium to the opposite, was three feet and seven inches.

An incision was next made from the middle of the sternum to the pubis, and dissecting back the common covering, the peritoneum and omentum were exposed. These membranes were highly vascular, thickened, and inflamed, the vessels exhibiting a kind of net-work. The dissection was at this stage interrupted by the great effusion of fæces into the cavity of the abdomen. Whether this rupture of the intestine happened before or after death, it is impossible to determine: it did not, however, occur during the dissection. After securing the ruptured intestine, which we traced to be the ilium, we

* Had I seen a case of "stricture of the rectum," reported by Dr. Jameson, of Baltimore, (before I had my last consultation,) in which he operated with success, I should certainly have performed the operation in my case. It will be recollected that I commenced the treatment of this patient on the 2d of March, and she died on the 16th of April. One month prior to the 2d of March she had not one alvine discharge, making the period of total obstruction two months and fourteen days!

proceeded carefully with the examination, although a very disgusting task. The whole track of the intestines furnished an appearance and size I could not have believed possible in a human being! The circumference of the colon measured thirteen inches and an half. The duodenum was of equal size, the ilium not less than either. The whole canal was filled with fæces of the consistence of thick gruel, with a due admixture of bile. On the first view of the bowels I could assimilate their appearance to those only of the largest of the inferior animals. The whole mass was glued together, and the adhesions so very strict as not to be separated with the hand alone.

The intestines were now removed for further inspection, and after being emptied and washed, were examined. They exhibited a high degree of inflammation throughout their whole extent: they had lost their valvular structure, the canal being continuous. The fæces emptied out of the tube could not be measured, but the bystanders estimated the quantity at not less than from five to seven gallons. And from the enormous distention of the intestines it seemed not exaggerated.

Many days before her death, the exhalations from her body became so very offensive as to render her room insupportable to the attendants, in spite of every precaution that could be used to render it comfortable.

The *stomach* was much contracted, insomuch that at first sight it was overlooked; its coats had undergone an entire change; it was highly inflamed and thickened, containing feculent matter.

The *liver* was firm, but somewhat increased in size, otherwise healthy.

The *gall-bladder* sound and natural.

The *kidnies* had undergone no change whatever.

The *uterus* was minutely examined. It was very firmly contracted above the pubes, and resembled a solid body; the omentum adhered to it intimately. After dissecting it out, and cutting through its parietes, it opposed the knife with a crepitus not unlike the cutting through gristle; this scirrhosity pervaded its whole structure. The portion on which the placenta had been implanted, could scarcely be distinguished. The organ had little the appearance of so recently giving an outlet to so large a body as a child between the sixth and seventh months.

The *bladder* was small, contracted, and much changed from its structure and natural appearance.

The *rectum* was then examined, first carefully dissecting it out

Its whole structure had undergone a change; for the space of seven or eight inches it resembled gristle in texture and appearance. In many parts it approached nearer to the substance of bone, as it resisted the edge of the knife. As it reached within two or three inches of the sphincter ani, the canal was contracted to the size of a finger ring, resembling a circle of bone, and not admitting the little finger to pass entirely through it with all the force that I could exert. Through this ring the adventitious membrane escaped.

Before I dissected out the rectum, I introduced a large metallic bougie from above downwards, so as to verify my views as to the membrane spoken of in the history of the case. It was carried before the instrument without the sphincter ani. I investigated this pouch minutely, and could discover no opening into it by which the fæces could have escaped. During the lifetime of the patient I could always reach it with my finger introduced into the bowel, being pushed down in the form of a valve from the accumulation above it.

The parts have been preserved.

Columbia, S. C. June 4, 1828.

ART. XI. *On the Utility of Prussiate of Iron in the treatment of Intermittent Fever.* By SAMUEL JACKSON, M. D. of Northumberland.

ABOUT eighteen months ago we had several cases of chronic pulmonary inflammation, attended with frequent attacks of intermittent fever, in which, as the bark was inadmissible, we determined to try the prussiate of iron. In these cases it often prevented the paroxysms for one, two, or three weeks, and in this respect it was precisely on a footing with bark; but it was a far safer medicine, for it never, as we believe, aggravated the inflammation; and hence, by checking the fever, it afforded a fair opportunity for bleeding away the visceral disease.

The time, however, soon arrived which was to afford the most ample opportunities of experimenting in the recent fever, and such was our success with this medicine in the first eight or ten cases, that we became quite enthusiastic in our estimation of the remedy. But further experience showed that though it was the most certain of all the substitutes for, it was far from being of equal power with the bark. Dr. Zollickoffer, to whom we are indebted for its introduction as a remedy for intermittent fever, says that in preventing the paroxysm, "it is more certain, prompt, and effectual than the justly celebrated cinchona," and

that "a patient treated with this article will recover from the influence of intermittent and remittent fevers in the generality of cases in much less time than is usual in cases treated with bark." This is truly a high commendation, but unless the doctor prescribed bark of an inferior quality, we cannot conceive how he could rate the prussiate or any thing else as more prompt and effectual. We know nothing more certain, more undeviating in its operation than bark, when properly administered; nay, we are emboldened to say from an experience of some thousand cases, that it will never fail when used with prudence. We do not pretend that it will cure every case in every state of the body. Intermittents are often attended with such inflammation or lesions, that a long, patient routine of preparation is necessary, and in many cases nothing but mercury, or time, or death, can cure; but these are clearly not to be taken into the account. Bark is not a medicine of regeneration—it cannot reintegrate the liver, the lungs, or any other disorganized part; but take ten thousand patients in recent mild intermittents, who were previously healthy, prepare the system properly, administer an ounce of bark, or twelve grains of quinine in proper portions during the interval, and we boldly assert that it will cure every case, and restore the patient for a time to perfect health. We do not say that our own experience has been so fortunate, but whenever unsuccessful, the fault was not in the bark. Patients are sometimes a little unobservant of our prescriptions; often they do not comprehend, and not unfrequently the physician is deceived in the state of the system, or in his haste to cure, he prescribes the bark too soon.

We are aware that the Peruvian antidote has fallen a little in public estimation since the promulgation of the doctrines of Broussais; but perhaps the time is not far distant, when the experience and accumulated wisdom of many generations will obtain their just regard. The most truly useful, the most clearly beneficent of all the gifts of heaven, are those which have been the most abused, and the cinchona happens to be one of the number. As an example of what we consider an abuse of the remedy, we may refer to the case of Etienne, Vol. I. p. 436, of this Journal.

We have thus stepped aside from the first proposition, in order to express our good opinion of the bark, that the reader may the more justly appreciate what we have to say concerning the medicine in question.

If the prussiate of iron is equal to the bark, it has not proved so in our hands. We have used it in not less than two hundred cases, which were altogether favourable for the immediate extinction of the disease by cinchona, but it failed, as we presume, in every fifth or

sixth instance. It is true, that in most of the cases in which it failed on the first trial, it proved successful in the second, third, or fourth interval immediately following; nor do we recollect any case in which the disease did not finally yield to this continued use of the medicine; but in all those instances we should have confidently expected to cure in one interval by the superior virtues of bark or quinine. As to relapses or recontractions of the disease, we believe they occurred about as soon and as frequently as they did after cures performed by cinchona. Dr. Z. says that patients "will recover from the influence of intermittent and remittent fevers, in much less time than is usual in cases treated with bark." By this we presume he means, that the final extinction of the disease is sooner attained. This we have not found to be the case. The medicine does not, like the bark, directly improve the appetite, and strengthen the enfeebled body; all that it does is to check the fever, and leave the system to its own recuperative powers. This we have reason to be assured of, for we have given it in smaller doses every second day, as a preventive, without any of that wonderful corroboration which so certainly follows the use of bark.

But here it is necessary to regard two points, on which experiments are limited, and knowledge therefore uncertain—the doses of the medicine, and the states of the system in which it may be given with the greatest success. It is possible that when these are ascertained, the prussiate may prove a more certain medicine than it has hitherto been.

First, then, with respect to the states of the system in which it is best administered. We have presumed that the body ought to be prepared precisely as for the bark, and that the medicine ought to be given during the interval. We have preferred giving the bark at least twelve hours if possible in quotidians, and twenty-four hours in tertians, before the time of accession, and the same rule we have observed in the use of the prussiate. Dr. Z. does not inform us in his paper whether he confined the use of it to the apyrexia, but Dr. Chapman, Therapeutics, 5th edit., tells us that he did not; and Dr. Hosack, app. to Thomas's Practice, 8th edit., says it has this advantage, "that it may be given in every stage of intermittents." It is possible that it may be even more effectual when given in the paroxysm, and this is one point to which practitioners ought to direct their attention. We have never used it thus in a single instance, but in quotidians we have directed it to be commenced with, as we often do the bark, in the decline of the sweating stage, in order that it might have more time to impress the system. Further experience may reveal something more

certain and useful in this particular. It was reserved for the last year to show that bleeding may be used with advantage in the cold stage of *some* cases, and therefore we need hardly despair of learning something further concerning the most advantageous administration of the new medicine.

In the second place, much of the reputation of the prussiate will depend on the doses and the quantity administered. Dr. Z.'s medium dose appears to have been six grains, two or three times a-day. Dr. Chapman, Therapeutics, 1827, does not appear to have experimented much on the subject himself, but says that Dr. WORTHINGTON, a respectable physician of Washington city, gives it in scruple doses. We began with the quantum of sixty grains, to be given during the interval, and this was uniformly successful in the first eight or ten cases; as soon as this was found to fail, we gave it with more freedom, and as it lay easy on the stomach, we gradually increased the dose so as to give two drachms during the interval. After having checked the disease, we have given from twenty to forty grains every second day for a fortnight, as a preventive, and this without any present or subsequent evil.

The proper dose, therefore, of this medicine, does not appear to be yet ascertained. Modern physiologists are surprised to discover how even SYDENHAM trifled with the bark, and our successors may find the same reason to complain of our sparing use of the prussiate. We did not go beyond the doses mentioned, because they were pretty generally successful, at least in the second or third interval, and we did not wish to be profuse in the use of a new medicine, till we should have time to observe whether it might secretly lay the foundation of future mischief. The time may come, when an ounce given during the interval, shall be found as successful as the same quantity of bark; but such doses of this compound are not to be hastily ventured upon, merely because they may produce no present distress. Like arsenic and lead, it may possibly subject the system to many future evils; but we have thus far observed no mischief whatever to result from it in any of our patients.

This medicine appears to have five advantages over bark. 1. It can be given when inflammation is present, without sensibly aggravating it. 2. It is less likely to do harm when taken without medical advice. 3. It may be given in the advanced stage of remittent fevers, when we are yet doubtful of the propriety of bark. 4. It may be useful in persons whose idiosyncrasies would seem to rebel against bark. 5. It is a much less expensive remedy.

The *first* advantage, that it can be given without detriment when

inflammation exists, is alone sufficient to entitle it to our warmest recommendation. We do not mean that a patient with strong, hard pulse, and strength not broken down, is to be forthwith treated with this medicine—far from it; he must be prepared in every respect as for the use of bark, by bleeding, purging, spontaneous diaphoresis. But every one knows that in his course of treating autumnal fevers, many cases occur attended with slow inflammation; that in many of these, the cause and the effects aggravate each other, and give rise to ulterior mischief; that very often he can neither bleed away the inflammation entirely, nor yet give bark with safety to cure the fever. It is not here necessary to particularise such cases. But hold—we do not mean that bark cannot be given with safety, when some little phlogosis exists; we know the contrary—but we know too that it is a perilous practice, and that it causes and aggravates those internal inflammations, of which Baglivi makes such piteous complaints, and which he attributed with some justice to the use of bark. We do not pretend that the fever cannot often be cured by cinchona, and the inflammation by its appropriate remedies; but surely if there is a medicine that is capable of arresting the fever without aggravating the internal mischief, there is one most important indication attained. It has often happened in our practice, that a common pleurisy was not half subdued, till an ague supervened to embarrass all our proceedings, and the unfortunate patient has been obliged to struggle with the disease, now aggravated either by quinine, or by a daily paroxysm of intermittent fever.

But there is a combination of diseases of more frequent occurrence to be found in countries subject to autumnal fevers; the lungs and liver are left in a state of slow inflammation, and the patient at the same time labours under an habitual ague. This is truly a deplorable state of things, and one in which the physician will often be assisted by the peculiar virtues of the prussiate of iron.

The *second* advantage to be noticed is, that it must always prove a safer medicine in domestic use and in the hands of ignorance. We are aware that bark is often used by the unlearned in medicine with entire safety, but sad experience has taught every physician how prone many families are to tamper with active medicines, to the irreparable injury of their health. It is thus too common among those who are more economical than prudent, to puke, purge, sweat, and then take bark, however often they fail, and whatever mischief they do. If it leave a pain in the limbs and head, with slow fever, restless nights, and all that train of evils with which patients walk about all day in distress, and lie down at night in despair; all which a physician could

remedy in a few days; if it finally leave a slow inflammation in the liver, the lungs, the bowels, or the head, and the sordid devotee of economy sink into debility and visceral lesions, never to know health again, let not the bark be blamed for any part of this mischief. As well might you endeavour to discredit the properties of the fire that has burned down your house, or of the water that has drowned your family.

The *third* advantage abovementioned is, that it may be sometimes given in the advanced stage of remittent fever, while bark is still, at least in our climate, a very doubtful remedy. In the treatment of remittents we have always been governed by the principle, that bark was not admissible till a decided intermission was attained. The actual existence of this is sometimes very uncertain, and in such cases we have given the prussiate with the effect of securing the patient from any subsequent exacerbation, and thus had him ready for bark on the following day. It sometimes happens that this is really a matter of vital importance, as the patient may become so worn down by the continuance of fever, as to be brought into imminent danger from every successive paroxysm. Whether the new medicine would prove salutary in slow typhus, which is apt to remit a little during the fore part of the day, we have not ascertained; but we certainly anticipate much benefit from it in such cases, and shall make the experiment in the very first that present.

The *fourth* advantage is, that it may be given to persons whose idiosyncrasies, whether natural or acquired, would seem to abhor the operation of bark in all its preparations. We know one lady who cannot take the cinchona in any form without puking, and even quinine pills would not lie on her stomach, though given with every care and without her knowing that they were extracted from bark. A gentleman of this town cannot take a sufficient quantity of bark to cure an ague, without suffering the most ungovernable restlessness, and a certain inexpressible distress of the nervous and cerebral systems; nor can he take a fourth of a grain of quinine every two hours, without having his teeth on edge with the acid—a fact almost incredible. To such patients as the above, it is probable that prussiate of iron might prove a medicine of great value.

From what little we have read and observed concerning this medicine, we shall venture to call it a specific, however unpopular the epithet. One potent argument in favour of its efficacy is this:—it often produces symptoms of intoxication, with all those distressing affections of the head, obtuseness of seeing and hearing, with ringing in the ears, which so often follow the use of quinine. It must here

be observed, however, that this observation was confined to one single season. Whether these affections are more troublesome in some years than others, we have not learned; but this we are assured of, that in our practice we never heard of *mere bark* producing them till last summer. In 1823 we took strong bark daily as a prophylactic for five months, generally from four drachms to an ounce every day, and not unfrequently half an ounce at one draught, yet no cerebral distress, nor any other evil followed; we enjoyed uninterrupted health and unusual vigour through the whole period, notwithstanding an accumulation of labour, upon which we have often reflected with astonishment; but last summer a single drachm a day brought on so much tinnitus as to confuse the mind, and compel us to abandon it. Many others made the same complaint of the bark, though they had taken it in former years without any of this uncomfortable affection. Quinine has always proved more or less troublesome in this way, but last summer it was particularly distressing, let the parcel from which we prescribed come from where it might. We had no other proof that the iron affected the head or stomach more than in former years.

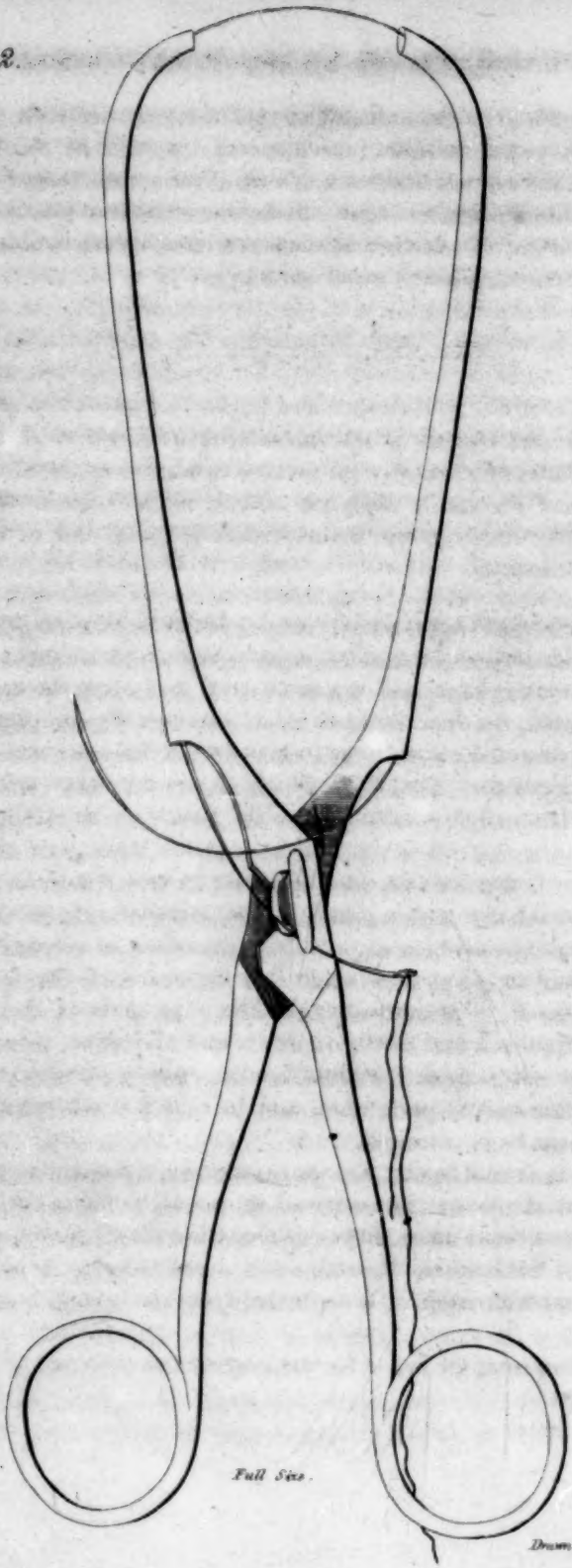
It is said above that we believe the prussiate to be the most certain medicine after bark in the cure of intermittent fevers. It is true we have not been very industrious with some of our own country remedies. Two or three species of *Cornus* are certainly useful, and particularly if the bark be taken from the root; we have often used them with success when the system appeared to have become through frequent repetition insensible to the specific operation of cinchona. But as leading articles in practice, we have generally found all remedies from our own forests to prove more troublesome than useful, and have therefore seldom employed them till others failed. Arsenic is certainly a medicine of some efficacy, but it is slower in its operation than the prussiate. It destroys the appetite, leaves the patient in a debilitated state, and as it has often done much secret mischief, and withal, is not necessary, we humbly presume that it ought to be abandoned as a primary remedy. In chronic cases, however, we have used Fowler's solution after wholesome medicines had failed; it generally poisoned the disease sooner than the patient, and thus effected more lasting cures than any other medicines. The *extract of pepper*, as noticed in Vol. I. p. 115 of this Journal, we have used with thrice the freedom that is there recommended, and yet it required two, three, and four intervals to effect a temporary cure. It ought never to be taken without the advice of a physician. An only daughter of a highly respectable man took pepper tea just before the time of accession, and a cerebritis immediately ensued which carried

her off the following day: a fact highly favourable to *physiological* medicine, and which may often occur in the use of pepper, or its extract, if inflammation exist in the brain or stomach. The *piperine* is far less pungent than the extract, and yet more successful—a fact which goes to show that there is really some specific virtue in the medicine, and that it cures, independent of its heating properties. We have lately used it in four chronic cases with complete success. In these we gave eighteen grains during the last ten hours of the interval, without any mitigation of the paroxysm; but the same treatment and dose in the next interval proved successful. In either case it was very certain that ten grains of quinine would have performed the cure at once. However this may be, the piperine promises to be a most useful succedaneum to the bark in many cases and states of the system, and it ought to be received at once among the *experienda* of every physician.—See Vol. I. p. 110 of this Journal.

If it be inquired why we made such free use of the prussiate, a medicine which was found to be inferior to the bark, we answer that it is always desirable to ascertain the virtues of every new agent; that finding it so very successful in the first few cases, and at the same time so much neglected by writers, we determined to bring it once more before the medical public. This we have done one year sooner than was intended, and of course our observations are not as precise and philosophical as they ought to be. This default, it is hoped, will soon be remedied by the care of more competent observers. Let them try the medicine freely, and publish their experience—a variety of practice, and a collision of opinions will finally establish its real uses and value; let them not be discouraged by hearing of its various virtues and improbable cures in other diseases—there is no medicine which is not abused on its first introduction into practice. We have used four pounds of it within the last year, and still use it with increasing confidence. Dr. Thacher tells us that it was employed in the New York Hospital "with little success;" but as it is possible that the house might have been furnished with some of a bad quality, and as mistakes may easily be made in this respect, we shall conclude with Dr. Zollickoffer's directions for choosing it. "Care must be taken to select that which is of a very dark blue approaching to black, having a shining coppery fracture and adhering firmly to the tongue." The inferior variety is of a lighter blue—we have not used it in a single case, and are of course unacquainted with its comparative value.

We cannot conclude without congratulating the reader on the rapid progress of science, and the happy results which are therefore auspi-

Plate 5. Vol. 2.



Full Size.

Drawn & Engd by J. Drayton

ciously promised to the industry of successive generations. Within the last six years, quinine, piperine, and the uses of the prussiate have been discovered, and our little children are no longer made to suffer repeated attacks of ague, till the cure be attained by bark injections and jackets, or their systems rendered unsusceptible of fever by the poisonous debilitation of arsenic.

ART. XII. *Description of an Instrument designed to facilitate the introduction of Ligatures into and around Deeply-seated Parts, as in cases of Fistula in Ano, &c.* By J. K. MITCHELL, M. D. one of the Physicians of the Pennsylvania Hospital and of the Almshouse Infimary.

THE instrument consists of two limbs with handles, united by a joint similar to that used in such obstetric forceps as have a screw. The limbs are hollow, and are so curved, that when the handles are approximated, the opposite ends meet, and one of them passes a very little way into the other, so as to make a continuous canal from one limb to the other. That limb which enters the other is made with such a cutting edge as is formed in the punch of the saddler or shoemaker.

When it is applied in a case of fistula in ano, the limbs are separated, and the one with a punch-like extremity is passed into the fistula as high as possible; after which, the other is inserted into the rectum, and the joint then made fast by means of the screw. By bringing the handles towards each other, the ends of the limbs are made to approach and finally to meet, and one passes into the other.

In some cases, as in complete fistulæ, nothing is cut, in some cases the intestine only is perforated, and in others a portion of cellular matter must be penetrated.

When the canal has been made continuous, a piece of watch-spring, sharpened at one end,* and armed at the other with a ligature may be passed without much difficulty along the canal, through the fistula and out at the rectum, drawing the ligature after it. When the ligature is drawn through, it is separated from the spring, and the limbs

* The sharpening the end of the watch-spring was suggested by Dr. Thomas T. Hewson.

being disunited are successively withdrawn, leaving the ligature behind them.

On the 21st of June, 1828, Dr. Hewson did me the favour to apply this instrument, in a case at the Pennsylvania Hospital, where from the extent of the parts between the fistulous canal and the rectum, the use of the knife might have been hazardous. In all such cases, and in those extending to a point beyond the reach of the finger, such an instrument will perhaps be found a convenient mean for the introduction of a ligature.

It might also perhaps be found useful to conduct a ligature around a deeply seated artery,* and by no means an inconvenient method of applying a band to the root of an internal tumour, when so situated as to prevent the use of the double cannula.

The essential parts of the instrument are the joint admitting of the separation of the limbs, the hollowed limbs, and the punch-like extremity of one limb capable of entering the other; together with a watch-spring so curved as to pass readily along the hollowed limbs. The form and size of the instrument might be variously modified to suit various cases; and, as in the several obstetric forceps, the joint might be diversified.

It is easy to suppose that, by means of such a joint, a limb like a bistoury either sharp or probe-pointed, might be substituted for the perforating limb of the instrument; and, after introduction of both the bistoury limb and the other, the locking of the joint and the closing of the forceps, the simply withdrawing the instrument, would cut through all the parts usually divided in operations for fistula in ano.

A more slender instrument formed nearly like the one delineated in the accompanying figure, Pl. V. might be advantageously used, when it is thought expedient to pierce the *os unguis*, in some forms of *fistula lachrymalis*.

The instrument was made by Mr. Schively, surgeon's instrument maker.

* In using it for an artery, the limbs need not be separated; the ends being a little distance apart, will pass one on each side of the artery, and when beneath it they may be brought into contact; and the ligature can then be passed around it.

ART. XIII. *Meteorological Observations made on the Island of Tinicum, eleven miles south-west from Philadelphia, latitude* 39° 48′, *for the year* 1825. By GEORGE F. LEHMAN, M. D. Lazaretto Physician of the Port of Philadelphia.

FOR several years past I have recorded the daily variations of the thermometer, the state of the winds, and other atmospheric occurrences, while resident at the quarantine station on the island of Tinicum, and in the city of Philadelphia, with such general remarks on the weather, as attracted my attention in various parts of our widely extended continent.

Such a concentration of facts may be hereafter interesting and useful to minute inquirers into the changes our climate has undergone in the lapse of time, and its diversified influence at distant periods on the health of our citizens, and the duration of human life.

The agency of heat and cold, and moisture and dryness, in the production of disease, and their intimate connexion with most epidemics, will not be disputed. In the meteorological observations for 1824, published in the Philadelphia Journal of the Medical and Physical Sciences, Vol. XIV. some prominent and irrefragable facts in proof of this agency were enumerated.

Impressed, therefore, with the belief, that a knowledge of the natural phenomena appertaining to the climate of every section of our country, is important to the physician, I shall protract my diary, unless some ardent labourer in the same field renders it nugatory, by his superior attention and industry.

Having removed my family to Philadelphia the last of September, the observations for the three succeeding months were made in the city. As the difference in latitude is only nine minutes, no material dissimilarity could be expected in the climate, and for the years 1826, 27, and 28, I made, and continue the register alternately in the city and on the island.

JANUARY, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	38	40	40	N. E.	Cloudy. Rain. Snow at night half an inch deep.
2	24	24	28	N. W. a gale.	Clear.
3	29	31	32	S. W., N. W.	Clear.
4	25	29	31	S. W.	Clear.
5	24	31	34	N. W.	Clear.
6	32	38	36	N., N. W.	Clear. Overcast.
7	28	31	32	S. W.	Clear. Cloudy.
8	34	35	35	S. E. a gale.	Cloudy. Small rain, and snow that dissolved as it fell.
9	36	45	41	N. W. fresh.	Clear. Thin ice made in the Delaware at night.
10	22	30	30	N. W., S. W.	Clear. Ice floating in the Delaware.
11	26	32	34	S. W.	Clear.
12	30	36	40	N. W., S. W.	Clear.
13	35	37	38	N. E.	Cloudy. Rain at night.
14	35	39	40	N. E.	Cloudy. Rain all day.
15	39	42	46	S. W.	Cloudy. The ice has all disappeared in the Delaware river.
16	39	47	46	N. E., S. E.	Cloudy. Clear. Drizzle at night.
17	43	46	46	N. W. fresh.	Clear. Daffodils breaking the ground.
18	31	35	38	N. W., W.	Clear.
19	36	44	44	W., N. W.	Clear. A sprinkle of snow at 7 A. M. Mild and pleasant weather.
20	32	38	40	N., S.	Clear. Common strawberries in blossom. Lettuce salad growing and good.
21	36	39	43	S. W., N. W.	Cloudy. A sprinkle of snow at 5 A. M.
22	23	25	28	N. E. fresh.	Cloudy. Ground frozen. Wind violent from N. E. all night.
23	23	24	25	N. E. violent, N.	Cloudy. Ground frozen. Wind very fresh from N. W. all night.
24	28	35	39	N. W. fresh.	Clear. Ground thawing in the sun.
25	35	39	40	N. W.	Cloudy.
26	36	40	41	S. W.	Overcast.
27	36	42	42	S. W., W.	Clear.
28	35	44	47	S., S. W.	Clear.
29	36	42	38	W., N.	Cloudy. Clear.
30	20	27	30	N., N. E.	Clear. Thin ice in the Delaware.
31	26	36	38	S. E., S.	Hazy. Ice in the Delaware.

Mild and pleasant weather.

Total rain during the month - - - - -	1.69 inches.
Mean temperature - - - - - -	35.02° Fahrenheit.
Maximum - - - - - - - -	47°
Minimum - - - - - - - -	20°
Range of Thermometer - - - -	27°

Hottest day, 16th—Coldest day, 30th.

Comparison with January, 1824.

Mean temperature - - - - - -	3.23° less this year.
Maximum - - - - - - - -	6° less.
Minimum - - - - - - - -	2° less.

Halifax, N. S. January 1st.—A beautiful butterfly of the oak species was caught in the street.

New York, January 2d.—The first winter-like weather this season commenced to-day. In the course of last night a heavy N. E. rain storm was succeeded by snow, which continued to fall till morning, when the wind came round to N. W.

Boston, January 4th.—A storm of rain commenced on the 1st, which soon changed to snow. The snow fell about five inches deep. The wind was violent during the storm.

Albany, N. Y. January 4th.—Until the evening of the 1st, the weather was unusually mild. The river had become clear of ice, but on that evening it began to snow, and we have now a depth of twelve or fourteen inches.

January 8th.—The thermometer at Augusta, Maine, at sunrise was at twenty-two degrees below 0.

Philadelphia, January 18th.—The winter so far has been a remarkable one. Little snow and ice, and comparatively speaking, very little cold weather. For the last two years we have had scarcely any snow. The signs in the fall of this year foretold a very severe winter. Unusually large flocks of wild geese and ducks have been seen in divers places, stretching their unwearied course towards the south. A white bear, (an uncommon occurrence,) was shot near the banks of the Susquehanna early in the winter. Our climate appears to be undergoing a great change, the cause of which for the present we will not attempt to determine. Time and observation will settle it. Some days last week seemed more like days in the spring of the year than in January.

Black River, Ohio, January 10th.—This day, between the hours of 11 and 12 o'clock, A. M. a noise was heard resembling the report of twelve or fifteen horsemen's pistols discharged in very rapid succession. It commenced in a north-west direction, to appearance about the elevation of forty-five degrees, and moved to the south-east, with a sound something like that produced by dragging a heavy log on frozen ground, interrupted at very short intervals with reports like those at the commencement. It was distinctly heard for nearly two minutes, and died away, or travelled out of hearing like a passing thunder storm. The day has been remarkably clear, and not a cloud has been seen in this region. Similar noises were heard at Cleaveland, Ohio, on the same day.

Charleston, S. C. January 19th.—In further proof of the genial sky which still continues at this unusual season, to warm the soil of Carolina, some damson plums are now ripe.

January 20th.—The winter is so mild at Quebec that the St. Lawrence is open.

January 22d and 23d.—The snow fell at Petersburg, Virginia, to the depth of two feet. Two negroes perished in the storm. At City Point the snow drifted in some places to the height of six feet.

Alexandria, D. C. January 23d.—Snow fell to the depth of near six inches.

New York, January 24th.—Since the 21st, a spell of real winter weather has prevailed, but without any snow. On the 22d and 23d there were indications

of a fall. To-day it has cleared up, and is extremely cold; the wind blowing fresh from N. W. No snow of consequence appears to have fallen betwixt this and Canandaigua.

Norfolk, Virginia, January 24th.—A fall of snow such as is rarely witnessed so far south, commenced here on the night of the 21st, and has continued with the intermission of a few hours ever since, accompanied with a heavy gale of wind. The ground was frozen, and is covered with snow to the depth of ten inches. Our citizens will have a better opportunity of enjoying the delightful recreation, which gives life and animation to all classes in our northern cities at this season. The mails have been delayed by the inclemency of the storm. The tide yesterday rose to an unusual height, and the cold was very severe.

Richmond, Virginia, January 24th.—The mildest winter experienced here for several years has at last brought us the deepest snow which has fallen for many winters. On the night of the 21st, after 3 o'clock, it began to snow, and continued until the 23d, with very little interruption, and uncommonly fast. The wind blew violently, and of course the snow drifted in many places very high, but its average depth is between one and two feet. Last evening the temperature of the air was cold.

Quebec, January 27th.—The season in this province has hitherto preserved its very mild character. The ice between the north shore and the Island of Orleans became stationary on the 23d, and on the evening of the 24th some carriages came up to town. The ice has since grown firm, and farmers flock to market with their produce, which has been on their hands a month longer than usual.

New York, January 31st.—The weather-wise predicted a furious storm in consequence of the perfect halo of unusual brightness which encircled the moon, nor were they mistaken. The evening of January 30th, set in with a drizzling rain, but before 8 o'clock it changed to snow. A north-east wind began to howl drearily over the city. Until 1 o'clock it blew a gale, and the atmosphere was thickened with snow to an extraordinary degree. The snow falls very rapidly, and is probably from fourteen to eighteen inches deep upon the level ground.

While almost every part of Europe is suffering from the overflowing of rivers, that great source of fertility in Egypt, the Nile, has failed this season in diffusing its waters to the usual extent. A deficient crop of grain it is feared will be the consequence.

In *January*, 1772, there was an uncommon fall of snow in York County, Pennsylvania. On the 27th of that month the snow was three feet and a half deep—a heavy rain then came on, which freezing, formed a thick crust. Nearly every man and boy in the county now turned out to chase deer, for while the hunter could run fleetly on the crust, the poor animals struck through, and from the wounds received in their legs, were unable to proceed far. The consequence was, that (with the exception of a few that were in the mountains, and in the more remote parts of the county,) the race was nearly extirpated.

FEBRUARY, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	34	40	42	N. E.	Cloudy. Rain at night, and snow three inches deep.
2	32	29	24	N. W.	Cloudy. Ground covered by snow.
3	22	23	24	W., N. W.	Cloudy. } Considerable ice in the river Delaware.
4	17	23	25	S. W., W.	Clear. }
5	19	30	33	S. W. fresh.	Clear. }
6	28	36	39	S. W.	Clear. Thawing. Delaware full of ice.
7	35	40	41	S. W.	Hazy. Drizzle of rain.
8	31	30	31	N. E.	Cloudy. Sprinkle of snow.
9	22	27	28	N. E.	Cloudy.
10	33	36	39	S. W., N. W.	Cloudy.
11	34	36	36	N. E.	Cloudy. Rain day and night. Some snow that fell on the first, still spread over the country.
12	38	41	44	N. E., N.	Cloudy.
13	38	52	54	N. W.	Clear. Snow all gone, excepting a small quantity in shady places.
14	38	44	46	N. E.	Overcast.
15	36	36	37	N. E.	Cloudy. Small rain.
16	37	42	43	N. E., S. W.	Cloudy.
17	35	44	47	S. E.	Cloudy. Rain.
18	39	45	44	W., N. W.	Clear.
19	35	41	47	N. E., E.	Clear.
20	30	36	37	N. E. fresh.	Cloudy. Snow, hail and rain all night.
21	32	35	35	N. E., N. W.	Cloudy. Sleet.
22	37	36	36	N. E. fresh.	Cloudy. Rain P. M.
23	35	39	39	N. E.	Cloudy.
24	37	41	43	S. E.	Clear.
25	38	42	46	S. E.	Clear.
26	40	37	38	N. E.	Cloudy. Rain.
27	35	36	39	N. E.	Cloudy. Snow.
28	31	34	37	W., S. W.	Clear.

Total rain during the month - - - - -	4.91 inches.
Mean temperature - - - - - -	35.99° Fahrenheit.
Increase of heat from last month - - -	1° within a small fraction.
Maximum - - - - - - - -	54°
Minimum - - - - - - - -	17°
Range of thermometer - - - - -	37°

Hottest day, 13th—Coldest day, 4th.

Comparison with February, 1824.

Mean temperature - - - - - -	1.24° greater this year.
Maximum - - - - - - - -	7° less.
Minimum - - - - - - - -	1° greater.

Boston, Mass. February 1st.—It commenced snowing in the afternoon, and continued with the wind at north-east till dark, in which time but little snow had fallen. During Tuesday night the wind freshened, and by morning blew with much violence, drifted into heaps the falling snow. The tide at the west end of the city rose several feet higher than usual, covering several of the wharves with water, and filling the under part of some of the houses.

Albany, New York, February 1st.—Snow began to fall in this city, and continued all the next day, until it was two feet deep.

Buffalo, Niagara, February 1st.—We have experienced all kinds of weather, from the keen blasts of December to the gentle airs of May, within the present winter months. The lake yet remains open. In the winter of 1819, some of our farmers ploughed in February, and Lake Erie closed about the first of March.

Boston, Mass. February 6th.—During the last month, and a few days past of the present, a great mortality has prevailed among old persons, arising probably from the rapid transitions of the weather from heat to cold, and from the unusual degree of dampness which has at different times pervaded the atmosphere.

Pittsburg, Penn. February 12th.—Our river is on the rise, and is expected to be in fine boating order in a few days. The weather continues remarkably mild.

Reading, Penn. February 17th.—Between the hours of 4 and 5 we experienced several vivid flashes of lightning, accompanied with loud peals of thunder, and rain—wind south-west.

Richmond, Virginia, February 23d.—The shad are appearing very early this year, owing to the mildness of the season. Several have been brought to market.

Detroit, Michigan Territory, February 25th.—We have had very little cold weather; almost no snow, and our river has been open the whole season. The wild geese, the sure harbingers of spring, have already begun to direct their flight northward. Indeed, such a season, even in this comparatively mild climate, has not been seen within the recollection of the oldest inhabitant.

Charleston, S. C. February 28th.—Our winter has been uncommonly mild in temperature, and with the exception of a few days, no ice has been visible. It is true we have had from time to time immense falls of rain, but these most generally cleared away into almost a summer season. At present, therefore, all nature is appearing like spring, and our trees are putting forth their buds. From the previously heated state of the atmosphere, however, an incessant though slight rain ensued on Friday last; it again cleared up warm on Saturday until the evening, when we were visited between the hours of 9 and 10 with a most sudden and violent hail storm. It continued for several minutes with the wind from the north-west, and many of the stones were of the size of pigeons eggs, three inches or more in circumference.

Philadelphia, February 28th.—The prevalence of catarrhs is very general in the city at present. In Boston and New York these complaints are still more prevalent. In Boston it is estimated that one-third of the population, including nearly all the younger part, are at this time labouring under them, and in New York the number is set down at twenty-four thousand.

MARCH, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	36	39	40	N. W.	Clear.
2	36	39	40	N. E.	Cloudy.
3	40	43	44	N. E., E.	Cloudy.
4	41	40	42	N. E.	Cloudy.
5	40	45	46	N., N. E.	Cloudy.
6	42	43	44	N. W. fresh.	Clear.
7	43	46	49	N. E.	Clear.
8	44	45	50	N. E.	Cloudy. Rain.
9	42	43	44	N. E.	Cloudy. Rain.
10	40	44	45	N. W.	Clear.
11	38	50	50	N. E., S. E.	Hazy. Rain at night.
12	53	57	59	N. W., S. E.	Clear.
13	50	59	61	N. W.	Clear.
14	50	59	60	N. B., S. E.	Clear.
15	48	59	61	N. E., S. W.	Clear.
16	45	51	51	N. E., E.	Cloudy. Rain, thunder and lightning at night.
17	58	66	64	S., S. W. a gale.	Cloudy. Clear.
18	56	58	60	N. W. fresh.	Clear.
19	48	54	57	N. W.	Clear.
20	52	60	62	S. W.	Clear.
21	48	48	50	N. W., E.	Cloudy.
22	39	43	44	N., N. E.	Clear.
23	42	48	51	N. E., S. W.	Clear.
24	48	53	55	N. E., S. W.	Hazy.
25	40	40	38	N. E. fresh.	Cloudy. Rain.
26	37	39	39	N. E. fresh.	Cloudy. Rain.
27	46	50	49	N. W. fresh.	Cloudy.
28	37	43	46	N. W. fresh.	Clear.
29	38	45	48	N. W., E.	Clear.
30	41	43	45	S. E.	Cloudy. Large rain, and thunder and lightning at night, and a gale from the S. W.
31	56	62	63	S.W. very fresh.	Clear.

Total rain during the month - - - - 4.29 inches.
Mean temperature - - - - - 47.80° Fahrenheit.
Increase of heat from last month - - - 11.81°
Maximum - - - - - - - - 66°
Minimum - - - - - - - - 36°
Range of thermometer - - - - - - 30°

Hottest day, 17th—Coldest days, 1st, 2d, and 26th.

Comparison with March, 1824.

Mean temperature - - - - - - 6.05° greater this year.
Maximum - - - - - - - - 11° greater.
Minimum - - - - - - - - 8° greater.

Richmond, Virginia, March 1st.—The long-continued spell of wet weather is almost without example. The sun has scarcely been visible three days for more than three weeks. When it has not rained in showers, a gloomy mist has hung over the earth. If any bright tints have streaked the evening sky, they gave no prognostic of a succeeding fair morning. Rain has taken the place of snow; and our present winter, like the same season in more southern latitutes, is more wet than cold. The earth is saturated with moisture, and the meadows are overflown with rain. James's River is swelled with a freshet, and has already risen over Trent's Bridge.

The weather in *Savannah*, Georgia, has been very severe. On the 3d inst. the tide rose higher than on any occasion since the September gale of last year. Nearly the whole of Hutchison's Island, opposite the city, was overflowed, and a great portion of the lower end of it yet remains under water.

March 4th.—The snow in the neighbourhood of Quebec, has sunk six or eight inches within a few days, but it was still on a level upwards of four feet deep. Yet their journals say they have seldom had finer prospects of an early spring. The unusually mild weather and humid atmosphere of the last month has occasioned at Quebec, as well as in more southern latitudes, very many cases of indisposition from catarrhs and sore throats.

Montreal, Canada, March 5th.—The weather has been for some weeks back so totally different from that which we are accustomed to have in this part of the country, that it has considerably affected the health of the inhabitants, colds, sore throats, rheumatisms, and all the train of maladies engendered by a damp atmosphere, have seized a great portion of the population. At least three thousand persons have been taken ill within the last ten days. The weather is now rapidly improving, an easterly wind seems to have dissipated the chill haze which enveloped us, and a warm sun is quickly melting the condensed snow and ice that covers our pavement.

Essex County, New York, March 6th.—About 2 o'clock in the morning a shock was felt in this town, supposed to be an earthquake. In Brookfield the shock was much more severe. We have since learned from the town of Lewis, that it proves to have been a volcano. We understand that there is a mountain there, whose bowels of stones and earth have been thrown out to the depth of a hundred feet, and that smoke was seen to issue from the centre for three days afterwards. A similar eruption took place there several years ago.

Havana, Cuba, March 8th.—The late and present rains are unparalleled in the remembrance of the oldest inhabitants. Last week we had a fall of hail, the only one since that noted forty-two years ago, and I picked up several as large as the tip end of my little finger.

March 10th.—Lake Erie is now entirely open, and so free of ice that navigation could not in the least be impeded by it, a circumstance very rare at so early a day. The average time of its opening for the last six years has been from the 6th to the 10th of May—ten months later than the present season. The whole winter has been so mild that very little ice has been formed, and that was too thin to withstand the approach of spring.

Brownsville, Indiana, March 10th.—The weather has for some weeks past been so generally warm, as to interfere very seriously with the calculations of the farmers and others who devote their attention to sugar-making.

Lancaster, Penn. March 17th.—About 2 o'clock this city was visited by a hail storm from the north-west, accompanied by lightning, thunder, and rain. It lasted about fifteen minutes. The hail at first were small, but increasing in size as the storm continued. Hail stones picked up after the storm was over, measured from three and a half to four inches in circumference.

Harrisburg, Penn. March 18th.—The drought for the last three weeks has been very injurious to the wheat and rye in the stiff limestone soils. A month ago our farmers were apprehensive that their grains were so forward as to be liable to injury by frost when in blossom; but the late dry and cool weather has been so unfavourable to vegetation, that it is not probable that they will be in blossom this spring earlier than they generally are.

Boston, Mass. March 19th.—A very mild winter has thus far been succeeded by a very early spring; and on the evening of the 17th we were visited by a summer thunder shower, accompanied with vivid lightning. The operations of agriculture have actively commenced. The robins, blue birds, and other songsters of the spring have renewed their carols, and the wild fowl have taken their annual flight to the north.

The 20th of March, 1760, the thermometer was at from five to ten degrees below 0. The winter of 1775-6, was a much milder one than the last.

Salem, Mass. March 23d.—Such was the state of the atmosphere, that at meridian, the moon in its first quarter, and the very brilliant planet, Venus, nearly in conjunction, were distinctly visible to the naked eye, and attracted the curiosity of a large number of persons. The sun was in his full splendour, and in the same quarter of the heavens in which the planets were visible.

Harrisburg, Penn. March 24th.—The spring trade never commenced so early. Arks, rafts, and boats, have been passing down the Susquehanna for the last ten days or two weeks, carrying the wheat, flour, pork, whiskey, &c of the vast country watered by this river and its branches to market.

Boston, Mass. March 26th.—The thunder gust which passed over the city last week, and was accompanied in this hyperborean clime by a warm rain, is stated to have poured down hail-stones in New York as large as musket balls, and at Pittsburg, Penn.: further south hail which measured from three and a half to four inches in circumference.

Norristown, Penn. March 29th.—We have ice one-fourth of an inch in thickness. At 6, A. M. the thermometer was as low as twenty-six degrees.

As a striking evidence of the unusual mildness of the past winter, the Susquehanna river, at Havre de Grace, has not been closed the whole season.

APRIL, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	45	49	51	N. W.	Clear.
2	40	41	42	N. E. fresh.	Cloudy.
3	34	36	40	N. E., N. fresh.	Cloudy. Snow.
4	48	57	62	N. W.	Clear.
5	56	62	64	N. W., E.	Clear.
6	49	57	60	N. W.	Hazy.
7	53	57	58	N. W.	Clear.
8	51	57	59	N. E., S. E.	Clear.
9	52	63	66	S. W.	Clear.
10	58	64	61	S. W., N. W.	Hazy. Cloudy. Rain.
11	52	65	68	W., N. W.	Clear.
12	50	51	49	W., S. W.	Clear.
13	47	51	52	N. W.	Cloudy.
14	47	54	52	N. W., N. E.	Cloudy.
15	50	56	58	N. E., S.	Clear.
16	54	68	65	S. W.	Clear.
17	60	59	68	S. W.	Clear. Cloudy. Drizzly.
18	61	68	71	N. W.	Clear.
19	57	59	54	N. E.	Cloudy. Small rain.
20	48	50	52	N., N. W.	Cloudy.
21	42	45	46	N. W.	Clear. Ice made at night of the thickness of a dollar.
22	54	61	64	N. E.	Clear.
23	55	64	67	N. W.	Clear.
24	54	59	59	N. E.	Hazy. Clear.
25	46	52	58	N. E.	Cloudy.
26	57	67	68	N. W.	Hazy. Clear.
27	60	63	64	W., S. W.	Clear. Cloudy. Sprinkle of rain.
28	53	56	59	N. E.	Cloudy. Rain. Thunder and lightning.
29	64	70	71	S.	Cloudy. Clear. Small rain.
30	58	63	63	S. W. fresh.	Clear.

Total rain during the month - - - - - 1.2 inches.
Mean temperature - - - - - - 56.11° Fahrenheit.
Increase of heat from last month - - - 8.31°
Maximum - - - - - - - - - 71°
Minimum - - - - - - - - - 34°
Range of thermometer - - - - - - - 37°

Hottest day, 29th—Coldest day, 3d.

Comparison with April, 1824.

Mean temperature - - - - - - 1.45° greater this year.
Maximum - - - - - - - - 3° less.
Minimum - - - - - - - - 7° less.

Richmond, Va. April 4th.—We have never before witnessed so strange a phenomenon at this season of the year as a snow. The verdant grass, the budding trees, the blooming flowers, are in singular contrast with this gloomy habiliment of winter. On the 2d instant a considerable change took place in the temperature of the atmosphere, and a cold rain drenched the earth till about two o'clock, when large flakes of snow began to fall. The heavy flakes fell near two hours, when it began to descend in finer particles, occasionally mixed towards the close of the evening, with a drizzling rain. It continued to fall till eleven or twelve o'clock at night. Had not the earth been very well moistened with rain, the snow would have fallen to a greater depth. It was almost three inches. The heat of the sun yesterday dissipated nearly every vestige of it.

Hudson, N. Y. April 7th.—A brilliant aurora borealis was visible in the evening. It continued some time after midnight.

West Chester, Penn. April 13th.—Spring has commenced unusually early. The fields and meadows present as lively a green as is generally exhibited the beginning of May, and the grain is luxuriant and promising in a high degree.

Pottstown, Penn. April 15th.—There is a field of rye in this neighbourhood, which will be in heads in the course of a week. Some of the stalks are two feet ten inches in length, and in perfect head at present.

Salem, Mass. April 23d.—Very sudden changes have taken place in the temperature of the weather during the last week. In the course of a few hours the thermometer fell from the point of summer heat to six degrees below freezing point, and on the 21st, ice of the thickness of an inch was found in this vicinity. No rains have fallen since the opening of the month.

Greensburg, Penn. April 25th.—The prospect of a great abundance of fruit of every description never was more cheering than during the present spring. On the night of the 22d, however, our fine prospects, so far at least as it regards the peaches and plums, were blasted by frost. The beautiful blush of the peach blossom, is changed to the withered, haggard appearance of the dried rose leaf.

April 25th.—New Orleans has literally been flooded with rain. The streets have ceased to be passable for carriages, and business of all kinds has been at a stand for a day or two.

MAY, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	62	64	63	S. W.	Clear. Cloudy.
2	52	56	58	N. W.	Clear.
3	58	56	58	S. W., S.	Cloudy. Small rain.
4	50	50	49	N. E., E.	Cloudy. Rain.
5	54	70	72	S. W., N. W.	Clear. Wind fresh from N. W.
6	54	61	63	N. W.	Clear.
7	63	72	71	N. W.	Clear.
8	60	68	70	N. E., S. W.	Clear.
9	60	65	66	E., S. W.	Clear.
10	58	66	67	N. E.	Clear.
11	56	60	61	N. W.	Clear. Cloudy. Drizzly.
12	56	61	62	S., S. W.	Clear.
13	56	60	66	N. E.	Clear.
14	59	65	67	S., S. E.	Clear.
15	62	66	70	S. E.	Clear.
16	62	68	68	S. E.	Overcast. Rain at night.
17	63	63	67	S. E.	Cloudy. Rain. Distant thunder and lightning.
18	64	70	73	S. W.	Clear.
19	70	71	72	S. W.	Clear.
20	63	70	70	N., N. W.	Clear.
21	64	64	66	S. W.	Cloudy.
22	66	70	73	N. E., S. W.	Clear.
23	65	72	74	S. W.	Clear. Overcast.
24	69	75	77	S.	Cloudy.
25	75	81	79	S. W.	Clear. Cloudy. Smart rain and considerable thunder and lightning.
26	63	70	74	N. W.	Clear.
27	68	71	74	S. W.	Clear.
28	70	76	80	S., S. E.	Clear.
29	68	71	72	N. E.	Clear.
30	68	70	71	S. W.	Clear.
31	70	73	74	S., S. E.	Clear. Cloudy.

Total rain during the month - - - - - 1.64 inches.
Mean temperature - - - - - - 65.91° Fahrenheit.
Increase of heat from last month - - - - 9.80°
Maximum - - - - - - - - - 81°
Minimum - - - - - - - - - 49°
Range of thermometer - - - - - - 32°

Hottest day, 25th.—Coldest day, 4th.

Comparison with May, 1824.

Mean temperature - - - - - - 1.58° greater this year.
Maximum - - - - - - - - 1° greater.
Minimum - - - - - - - - 2° less.

Pennsylvania, May 1st.—Spring with her gaudy, but beautiful covering, has once more decked the fields with verdure, and the gardens and orchards with blossoms and flowers. The forests, too, are bursting from the bondage of the winter's frost, and throwing up their various buds and blossoms to the sun in the same splendid profusion that distinguishes an American forest in the autumn. The more hardy oak and hickory have already put forth, while those trees which are less cautious in exposing their buds to the severity of an April frost, are full in blossom. The orchards of peach, cherry, and apple trees, have mostly shed their blossoms, leaving the promise of a plentiful season. Grain of every kind looks uncommonly well, but the wheat crop in particular uncommonly promising.

May 2d.—There was a fall of snow at Boston, and ice in the vicinity at night.

Lycoming County, Penn. May 4th.—We have had frost for the last three or four nights, and to-day a fall of snow. It commenced snowing between 10 and 11, A. M. and continued for four hours. The ground and trees are completely covered with it, and the country has all the appearance of winter.

Salem, Mass. May 6th.—Winter may be truly said to "linger in the lap of May." The past week has been gloomy and chilly, and more uncomfortable than at any time during the past winter. On the 3d we had a slight fall of snow, and on the night of the 5th a fine rain, of which vegetation stood much in need. It still continues unusually cold. In Pittsfield, on Friday morning last, the ground was covered with snow.

Washington City, D. C. May 8th.—After a very warm day, was visited by a heavy thunder storm, accompanied by such violent wind that several of the large poplars at the eastern end of Pennsylvania Avenue suffered materially. One large tree was entirely uprooted.

New Orleans, May 9th.—About 1 o'clock the brig Crown, while lying a few miles below the English turn, was struck by lightning.

Washington, Penn. May 10th.—Between 5 and 6 o'clock in the evening a very violent and destructive storm of hail, rain, and wind, accompanied with thunder and lightning, passed from the north-west over this town and vicinity. In its course the garden vegetables and fields of grain were cut up and laid prostrate, almost beyond recovery, and the fruit which had been spared by the previous spring frosts, were chiefly destroyed. Of the hail we saw none larger than a musket ball, although from the accounts of our country friends, we suppose some fell there the size of large hickory nuts. The thick showers of hail were almost irresistible, forced as they were, with the violence of a hurricane. As is usual with hail storms at this season of the year, it was not of great breadth.

Bellefont, Penn. May 11th.—About 12 o'clock, M. a large circle, combining all the beautiful colours of the rainbow, was observed in the heavens, encircling the sun.

Easton, Md. May 14th.—The Hessian fly is making its accustomed ravages upon the hopes and the labours of our farmers. It is said to be unusually injurious this season; whole fields are laid waste and irrecoverably gone.

Charleston, S. C. May 15th—During a severe storm of thunder and lightning, accompanied by a heavy fall of rain, a house in Price's Alley was struck by lightning. The brig Eugene, lying in the stream, was also struck by lightning, which partly melted the conductor, and separated it in many places. The ves-

sel was uninjured, but the mate who stood near the mast was knocked down, he soon however recovered. The ship Franklin had her royal mast shivered to pieces; and the flag-staff of the mariner's church was also struck.

May 16th.—The Susquehanna and Juniata are unusually low, and have been so for a month past.

Chambersburg, Penn. May 17th.—A violent and destructive hail storm, accompanied by vivid and incessant lightning, loud thunder, and torrents of rain, passed over this borough. It came from the west, and was about two miles wide, and extended a distance of ten or twelve miles before it exhausted its fury. The hail was from the size of a musket ball to that of a hulled walnut, and fell in sufficient quantity to cover the ground. In the whole course of this storm, the rising crops of grain have been generally injured, and on some farms entire fields totally destroyed. On the 19th, some of the hail was still to be seen. Such was the violence of the storm that there are fruit trees which will bear marks of it for some time; small birds were found in the streets killed by the hail.

May 18th.—A most tremendous hail storm occurred in Butler County, Penn. north of Harmony, which prostrated trees, buildings, and fences, and destroyed property of various kinds. Some accounts of the violence of this storm almost exceed credibility.

Nottaway County, Va. May 19th.—About 5 o'clock in the afternoon, the most destructive and violent gales of wind and hail which ever happened here, prostrated our corn, wheat, and cotton fields. The horrors of it were severely felt, and its effects are lamentably visible. At times, the wind and hail were distressingly violent, bringing with them such floods of rain, that we cannot perceive how the dwelling houses resisted their fury. The size of the hail was that of a partridge egg—the ground was entirely covered with it, and where it had drifted up against logs and fences, it was from eighteen to twenty-four inches deep.

Bucks County, Penn. May 20th.—A fine rain has given vegetation a fresh start, and our farmers are satisfied that the prospect of heavy crops will be realized.

Fredericksburg, Va. May 24th.—About sunset, during an extremely broad and vivid flash of lightning, accompanied by severe thunder, a heavy fall was heard upon deck by the passengers in the cabin of the steam-boat Washington, and in a few seconds the helmsman came in a manner "*doubled up,*" down the companion, and fell like a log of wood lifeless upon the floor. His eyes appeared fixed and glazed, and for some time it was apprehended that the poor fellow was indeed dead, but he revived, and in an hour entirely recovered. His account was, that without seeing any lightning, he was driven by an unknown power from the wheel of the vessel against one of the lateral iron rods of the platform on which he stood, was then precipitated forward, and recollected nothing more.

Philadelphia, May 25th.—There was a thunder storm this evening; a man in the streets was killed by the lightning.

Bucks County, Penn. May 31st.—The late refreshing rains have contributed very much to the promising appearance of vegetation; and there will be an abundant yield of wheat, rye, Indian corn, oats, and flax. The Hessian fly and grub worm have been entirely innoxious to the crops of wheat and corn in this country.

The Neshamony and other streams of running water are unusually low.

JUNE, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	70	71	72	S., S. E.	Cloudy. Fine rain at night.
2	71	76	77	N. W.	Cloudy. Clear.
3	66	71	72	N., N. E.	Overcast.
4	59	59	60	N. E.	Cloudy. Rain. A gale from the N. E. all day and night.
5	60	60	63	N. W., fresh.	Cloudy. Rain. A severe gale.
6	70	74	75	N. W.	Clear.
7	77	82	83	W., N. W.	Clear.
8	79	83	84	S. W., W.	Clear.
9	81	84	85	S. W.	Clear.
10	78	84	86	S. W.	Clear.
11	80	86	87	S. W.	Clear. Atmosphere electric at night.
12	85	88	88	W.	Clear. Cloudy. A squall P. M. Showers with moderate thunder and lightning.
13	79	82	83	N. W.	Clear.
14	73	76	78	N. W., W.	Clear.
15	74	78	79	S. W., S.	Clear. Hazy.
16	78	82	78	S. W., N. W.	Clear. Cloudy. Sprinkle of rain.
17	75	77	79	N. E., S.	Clear.
18	71	72	73	S., S. E.	Cloudy. Hard showers.
19	76	82	85	S. W.	Clear.
20	80	84	86	S. W.	Clear.
21	80	86	87	S. W.	Clear. Air electric at night.
22	80	82	82	N. W.	Clear.
23	71	74	77	N. W.	Overcast. Clear. Sprinkle of rain at night. Air electric.
24	71	72	74	N. E.	Cloudy. Clear. Rain.
25	72	74	80	S. E., S. W.	Cloudy. Clear. Fine shower.
26	74	76	76	N. W.	Clear. Flying clouds.
27	71	74	78	N. E., S. E.	Clear.
28	69	70	76	S. E.	Cloudy. Clear. Hard shower with lightning and thunder.
29	72	76	77	N. W., S. W.	Clear.
30	72	77	78	E., S. E. fresh.	Clear. Hazy.

Total rain during the month	3.34 inches.
Mean temperature	76.49° Fahrenheit.
Increase of heat from last month	10.58°
Maximum	88°
Minimum	59°
Range of thermometer	29°

Hottest day, 12th—Coldest day, 4th.

Comparison with June, 1824.

Mean temperature	2.99° greater this year.
Maximum	The same.
Minimum	1° less.

Harrisburg, Penn. June 1st.—Abundant rain has imparted new vigour to vegetation. The fruits of the earth promise to be most plentiful.

Wilkesbarre, Penn. June 4th.—Large rains have cooled the earth, and the appearance of fruit, as well as the various crops, is very flattering. We have not heard of a single instance of an attack upon the wheat, corn, or other crops, by the fly or worm in this county.

Norfolk, Va. June 6th.—It is uncommon to hear of violent storms and hurricanes on any part of our extensive continent in the month of June: but we have to notice a visitation of stormy weather, which commenced about nine o'clock on the night of the 3d instant, rarely if ever equalled. The storm of the 3d of September, 1821, was perhaps rather more violent, but it lasted only three or four hours, while this continued with undiminished violence for about twenty-seven hours. It commenced raining early on the morning of the third, and continued without any intermission the whole of that day. The wind at the commencement of the storm was at N. E. and so continued until about twelve o'clock on the 4th, when it began to haul round gradually to the northward and westward, and held up at S. W. Sheltered as Norfolk is from northerly and easterly winds, neither the town, nor the shipping in the harbour suffered much from the fury of the tempest; a few fences blown down, trees uprooted, and gardens spoiled, comprise the whole of its ravages; but considerable damage was done by the tide, which rose at least eighteen inches higher than it was ever known to be within the last forty years.

Portsmouth being more exposed, the effects of the gale were more severely felt on that side.

Alexandria, D. C. June 6th.—The summer has set in cold. On the 4th it was so exceedingly uncomfortable with a heavy N. E. wind and rain, that fires were indispensable all day.

June 6th.—At half past ten o'clock at night, two distinct shocks of an earthquake, following each other in quick succession, were felt in the town of Augusta, Maine. They were accompanied with considerable noise. At half past twelve there was another shock, more severe than the first. Buildings were sensibly jarred, and glasses jingled where they stood in contact. These shocks were also felt in Hallowell, and in Waterville, Gardiner, and Wiscasset.

Wilmington, Del. June 7th.—The prospect of the crops of winter grain in the surrounding country is remarkably fine.

Richmond, Va. June 7th.—After nearly three days of rain, a hurricane blew up from the N. W. on the morning of the 4th, and continued till night. Many trees were torn up by the roots, the atmosphere was chilled, and fires were kindled in the houses.

June 7th.—The thermometer was four degrees higher at Norwich, Connecticut, than at any time during the whole summer of last year.

Boston, Mass. June 7th.—The thermometer ranged as high as 90° in the shade, and on the 8th it was one or two degrees warmer.

Quebec, June 9th.—The thermometer was up to 91°. On the 10th it reached in the shade 95°. At Niagara on the same day the thermometer was up to 90°.

Montreal, June 10th.—In the evening a very violent thunder storm happened. The rain, which descended in torrents, was strongly impregnated with sulphur.

Philadelphia, June 11th.—A large and brilliant circle was seen around the sun, which remained for two or three hours.

New York, June 12th.—About five o'clock in the afternoon a tremendous thunder gust occurred just above the Highlands. The rain, and hail-stones which were as large as walnuts, fell in frightful torrents. The storm appears to have spent its fury within narrow limits, as little or nothing of it was felt below the Highlands. Since that time we have experienced a great change of weather. A similar storm of hail and rain happened at New London on the evening of the 12th, and lasted until one o'clock at night.

Harrisburg, Penn. June 13th.—The last week has been oppressively warm. Hay harvest has commenced a week earlier than usual, and from appearances, wheat and rye will be fit for the sickle sooner than it has ever been known in this climate.

New York, June 13th.—The mercury in Fahrenheit's thermometer has ranged since the 6th between 80° and 90°, night and day, and in some positions reached 94° or higher. On the 11th and 12th steady at 89°. Some lively breezes, and a damp atmosphere from distant rains, have fortunately abated the intenseness of the heat; a number of persons, however, have fallen victims to it. The mercury stood at 82° in Wall street, where it rose to that degree only once the last season. At Boston, on Friday afternoon, it was 95°, and at Albany on Saturday afternoon at 94°, and at Providence 89°. At Hartford the mercury was at 95°. There had been plenty of rain, and the fields never looked finer.

Greensburg, Penn. June 17th.—Our farmers are busily engaged in putting up a plentiful crop of hay. This year the harvest will be over at least ten or twelve days sooner than usual. The fruits of the earth will be uncommonly abundant.

Salem, Mass. June 18th.—The weather was extremely hot last week.

Quebec, June 19th.—A meteor was observed in the evening, a little before nine o'clock, in the north-eastern part of the heavens. The air was serene and the sky cloudless; the night previous had been remarkable for very loud thunder, and a heavy shower of rain, accompanied by a violent gust of west wind, succeeding upwards of a fortnight's dry weather. The thermometer stood at 58° of Fahrenheit. Although it was in the dusk of the evening, and the moon shone, such was its brilliancy that it threw a shadow from the objects around. The direction of its motion was at an angle not far removed from a perpendicular to the horizon, and it advanced from S. W. to N. E. Its brilliancy increased as it moved, and when at an angle of about fifteen or twenty degrees above the horizon, it burst into a number of stars of a deep red colour. It was unattended with any noise, and was visible about twice as long as a shooting star. No heavenly bodies could be distinguished at the time, other than Venus, the moon, and one or two stars of the first magnitude.

Bucks County, Penn. June 20th.—As the summer advances, the prospects of the farmer brighten. The crops of grain generally will be heavy. The few peach trees here will bear but a slender quantity; the late and severe frosts have nipped the fruit in the bud. Apples will be scarce—grapes plenty.

Mifflintown, Penn. June 25th.—In consequence of the extreme drought for the last six weeks, the spring crops are much injured; indeed some fields of oats are almost destroyed. Vegetation is generally checked in its growth, and in some places completely parched. Streams are unusually low.

The quantity of rain which fell in New Orleans from the 1st of June, 1824, to the 1st of June, 1825, was 107 inches.

JULY, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	74	78	79	N. W., W.	Clear. Cloudy.
2	74	72	73	S. E.	Cloudy. Sprinkle of rain.
3	75	75	77	S., S. W.	Cloudy. Sprinkle of rain.
4	75	78	79	W., S. W.	Clear. Overcast.
5	77	80	80	S. W. fresh.	Clear. Cloudy. Sprinkle of rain.
6	73	78	79	N.W., S.W. fr'h.	Clear.
7	74	74	76	N. W.	Cloudy.
8	70	75	77	N. E., E.	Clear.
9	73	78	82	S. W, fresh.	Clear.
10	78	85	86	S. W. fresh.	Clear.
11	82	86	89	S. W.	Clear.
12	83	89	90	S. W.	Clear.
13	82	84	86	N. W.	Clear.
14	77	78	79	N. E., E.	Overcast. Cloudy. Drizzle of rain at night.
15	73	77	81	N. E., E.	Clear.
16	76	82	83	N. W., W.	Clear.
17	80	84	87	N. W., S. W.	Clear.
18	80	86	89	N. E., S. E.	Clear.
19	83	88	89	S. W.	Clear.
20	82	87	90	S. W. fresh.	Clear.
21	84	90	91	S. W. fresh.	Clear.
22	86	89	90	S. W.	Clear.
23	84	90	91	S. W.	Clear. Cloudy. Sprinkle of rain. Distant thunder and lightning.
24	82	86	88	S. W.	Clear. Moderate shower at night.
25	77	78	76	N. E.	Cloudy. Small rain.
26	73	78	80	N. W.	Clear.
27	71	76	78	N. E.	Clear.
28	72	78	81	N. E., E.	Clear.
29	74	79	82	S. W. variable.	Clear.
30	72	78	82	S. W., S. fresh.	Clear.
31	72	78	82	S.W. fr'h. N.W.	Clear. Cloudy. Moderate showers. Distant thunder.

Total rain during the month, - - - - 1.96 inches.
Mean temperature, - - - - - - 80.37° Fahrenheit.
Increase of heat from last month, - - 3.88°
Maximum, - - - - - - - 91°
Minimum, - - - - - - - 70°
Range of thermometer, - - - - 21°

Hottest days, 21st, 22d, and 23d—Coldest day, 2d.

Comparison with July, 1824.

Mean temperature, - - - - - 4.04° greater this year.
Maximum, - - - - - - 7° greater.
Minimum, - - - - - - 2° greater.

Beaufort, S. C. July 5th.—The present appearances of the coming crops of Sea Islands are very gloomy. The heavy winds and incessant rains have very materially injured them.

Dover, N. H. July 10th.—At 3 P. M. the thermometer in the shade stood at 97°. On Monday at noon, it was 94°—at 2 P. M. at 99° under the shade of a tree. On the same day at Portland, Maine, at two o'clock the thermometer was at 93°, and at sunset 91°. In the evening there was much sharp lightning; and about ten o'clock a smart shower.

New Haven.—On the 10th at three o'clock the thermometer stood at 90°, exposed to a free current of air, and unaffected by any other cause than the heat of the atmosphere. At three o'clock on the 11th it was at 92°; and in New York the mercury in some situations in the shade was as high as 89° and 91°.

New Bedford, July 11th.—The thermometer stood at 90° before sunrise, and about noon at 95°.

July 10th.—The harvest commenced this season full ten days earlier than usual in every part of the United States.

Boston, July 13th.—The mercury in the thermometer in the coolest situation for several days, has ranged from 90° to 97° and even to 100° of Fahrenheit, and when exposed to the sun has risen to 120°. Many of the citizens have fallen victims to the hot weather in consequence of drinking cold water. It is unprecedented in our annals, and has thrown a melancholy gloom over our city.

Providence, R. I. July 13th.—The excessive heat was fatal to the fish in Brush pond in Cranston. This pond is about three acres, and the water between two and three feet in depth, yet so intense was the heat that all the fish therein were suffocated. Several hundred perch, &c. were found floating on the surface of the water, and large quantities were taken from the bottom without any signs of life.

Salem, July 13th.—Some of our thermometers in the shade are as high as 104°, and on the 11th and 12th at Newburyport, they were at 95° and 98°.

July 13th.—A violent and destructive tornado, accompanied with a shower of hail, passed over Cushing, Maine. Crops, cattle, barns, windows, fences, and trees, were destroyed or levelled by the force of the hail and wind. Its course was from N. W.

Hartford, Conn.—On the 12th, 13th, 14th, and 15th, the thermometer ranged from 96° to 102° in the shade. Such excessive hot weather has rarely, if ever prevailed here before.

New York, July 21st.—For the last three days the mercury has been upwards of 90° in the shade, nor has it fallen much in the night. Vegetation is parched up—the leaves of the few trees scattered through the city are burned crisp and brown—the hammer of the mechanic moves languidly—cattle and horses pant in the sun or fly to the shade, and indeed an almost insupportable degree of lassitude pervades the whole animal world.

Philadelphia, July 21st.—Besides the accounts received of the fatal effect of heat on men, on horses, and on fish, we learn that some of the feathered tribe have become its victims. The swallows which inhabit the large ship-house at the navy yard, are daily dropping down dead among the workmen below. The thermometer stands thus:—

In the commandant's office, - - - - - - 98°
In the ship-house near the roof, - - - - - 106°.

Washington City, July 22*d.*—Two o'clock, P. M. the thermometer was at 96°, when an agreeable thunder gust came on, and reduced it to 82°, being a difference of 14° in less than two hours.

Staten Island, N. Y. July 23*d.*—The thermometer stood at 92° at eleven o'clock, A. M. A fresh breeze came in from sea shortly afterwards, and by twelve o'clock the thermometer was at 78°, having fallen 14° in the space of an hour.

Baltimore, July 23*d.*—A severe thunder storm with copious showers of rain has produced a sudden and agreeable cooling in the atmosphere.

New York, July 25*th.*—To-day a slight rain with a continuation of a clouded sky, has relieved us from the intolerable heat.

Nantucket, July 25*th.*—The heat of the weather for a fortnight has been very great, and the whole season uncommonly dry. For the last two months, with the exception of one violent shower on the 21st of June, the aggregate quantity of rain which has fallen on this island, has not exceeded an inch in depth. Many of the streets are filled to the depth of a foot with sand and dust, pulverized to an impalpable powder, that rises upon the sluggish atmosphere, threatening suffocation to man and beast. Vegetation is completely checked.

July 30*th.*—For more than a year spots on the sun have been very frequent, but one of the magnitude of that now visible on the disk of that luminary is seldom seen. It is easily discovered by the eye protected by a dark glass, without the assistance of a telescope. This spot entered upon the disk about five days since.

West Chester, Penn. July 31*st.*—The parched earth was refreshed with a plentiful shower of rain, accompanied with intense thunder and lightning, and some hail.

July 31*st.*—A violent thunder storm charged with hail occurred at Newburyport, Mass. and at West Newbury a tremendous hail storm. It went in a vein not more than three-quarters of a mile wide, from W. N. W. to E. S. E. The hail-stones were as large as pigeon's eggs, and of all conceivable shapes.

The long-continuance of the heat this summer is remarkable, and it has been generally felt over the continent. It is a peculiar circumstance, that the greatest intensity of heat occurred to the north and east of us.

In consequence of this extreme hot weather, complaints of the stomach and bowels have been more frequent among adults and children than is common; also inflammation of the eyes, brain, and apoplexy, and the sudden deaths occasioned by drinking cold water have been frightful.

The dysentery prevails very extensively in various parts of the state of Maryland, and on the 10th of July at Montreal, one hundred and sixty children were buried in the French burying ground, whose deaths were occasioned by diarrhœa and dysentery.

The weather in Jamaica in July was extremely and unusually boisterous—thirteen days incessant rain and gales of wind, and a terrible hurricane spread desolation over some of the West Indian islands.

AUGUST, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	76	80	82	N. W.	Clear.
2	71	71	73	N. W.	Cloudy. Fine showers before daylight.
3	70	74	76	N. W.	Clear.
4	72	76	80	N. W., S. W.	Clear.
5	73	77	80	N. E., S. E.	Clear.
6	74	79	82	S. W.	Clear.
7	75	81	84	S. W.	Clear.
8	77	80	86	S. E.	Clear.
9	75	80	85	S., S. W.	Cloudy. Clear. Fine shower A. M. Shower P. M. Thunder and lightning. Air electric at night.
10	78	80	84	S. W., N. W.	Clear.
11	72	71	71	N. E.	Cloudy. Drizzle of rain.
12	70	74	78	N. E.	Clear.
13	73	77	81	S. W. fresh.	Clear.
14	81	86	87	W., S. W.	Clear. Air electric at night.
15	78	84	88	W., S. W.	Clear.
16	84	88	89	N. E., S. E.	Clear. Light rain at night. Distant thunder.
17	76	77	74	N. E. fresh.	Cloudy. Moderate rain.
18	67	66	66	N. E. fresh.	Cloudy. Rain. } Abundant.
19	63	61	60	N. E. fresh.	Cloudy. Rain. } Abundant.
20	66	72	68	E. fresh, N. E.	Cloudy. Rain. } Abundant.
21	64	66	67	N. E., N.	Cloudy. Rain at daylight.
22	67	70	71	N., N. W.	Flying clouds.
23	70	75	77	N. W., E.	Clear.
24	75	79	83	E., S. E.	Clear.
25	80	82	84	N. W.	Clear.
26	78	81	82	N. E. fresh.	Clear.
27	71	74	76	N. E.	Clear.
28	70	75	77	S. W. fresh.	Clear.
29	71	75	76	N. W.	Clear.
30	72	76	80	N. W., S. W.	Clear.
31	73	81	83	S., S. W. fresh.	Clear.

Total rain during the month, - - - - 3.69 inches.
Mean temperature, - - - - - - 75.91° Fahrenheit.
Decrease of heat from last month, - - 4.46°
Maximum, - - - - - - - - 89°
Minimum, - - - - - - - - 60°
Range of thermometer, - - - - 29°

Hottest day, 16th—Coldest day, 19th.

Comparison with August, 1824.

Mean temperature, - - - - - - 3.25° greater this year.
Maximum, - - - - - - - - 6° greater.
Minimum, - - - - - - - - 4° less.

Mifflintown, Pa. August 6th.—Owing to the long-continued drought, the crops of corn in this vicinity have entirely failed; being literally burnt up.

Bucks County, Pa. August 8th.—The long and dry spell of hot weather has been ruinous to corn and the second crops of hay. Grass has suffered severely, and though we have been favoured with a few smart rains, yet it will require more to change the sun-burnt garb of nature to its natural lively hue of green.

Auburn, N. Y. August 10th.—The intolerable atmosphere of fire, which caused so much repining and suffering a short time since, has of late become more temperate and congenial to our feelings. But the air has been so long charged with electric matter, that nothing short of a severe thunder storm could be expected to restore its purity and elasticity. On the seventh, a tremendous thunder storm, accompanied with vivid lightning, passed directly over our heads. The clouds were soon dispersed, after discharging a torrent of rain.

August 13th.—An excessive and destructive drought, prevails in the greater part of Amherst and Nelson counties, Virginia. In many places there has been no rain to wet the earth, since the 1st of June. Vegetation is parched up. Many cornfields will not produce the seed, and the tobacco looks equally unpromising.

Baltimore, August 17th.—The thermometer rose to 95½°, and on the fifteenth, at half past 5 P. M. to 96¼°; being higher than it had been at any other time this season. On the sixteenth, at eight o'clock, it was 89°, and at two o'clock, 94°. The atmosphere, during the late hot weather, has been exceedingly clear and free from vapours; so much so at one time, that at 12, M. the moon, in her last quarter, about 45° from the sun, and a star still nearer, were distinctly seen. Although there have been clouds almost every day, they do not appear to have mingled in the atmosphere generally, but to have concentrated into distinct bodies. May not the state of the atmosphere have contributed largely to the high degree of heat experienced, by permitting the sun's rays to reach the earth in all their pristine fervour? And may not this be the cause, also, of the almost entire absence of all diseases of a bilious kind, notwithstanding the warm weather.

August 20th.—A smart shock of an earthquake was felt in Falmouth, Jamaica.

St. Johns, N. B. August 20th.—It is painful, and indeed alarming, to notice the scarcity of water in this city. We never have witnessed such a season. All the wells, both public and private, are dry. Not a cask of water can at this time be purchased, and unless we are blessed with rain shortly, we fear that the consequences will be serious.

Kingston, U. C. August 21st.—About twenty minutes past five o'clock in the morning, a brilliant rainbow was observed in the sky in the direction of S. W. and N. E. forming a complete semicircle with the horizon.

Lancaster, Pa. August 26th.—The banks of the Conestoga are at present lined with dead fish; produced, no doubt, by the extraordinary heat, or some impurity in the water, owing to the immense quantity of vegetable matter which is now in the river.

The yellow fever prevails in the cities of Mobile, Alabama, and New Orleans, Louisiana.

The heat in Europe, during June and July, was almost as oppressive as it was in the same months in America. In London, the thermometer ranged 86°, and in Paris it has been as high as 95°, and at Ghent the heat was almost insupportable.

SEPTEMBER, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	68	71	73	N. W. fresh.	Clear.
2	66	70	72	N. W., S.	Clear. Thermom. 56° at 6 A. M.
3	64	69	71	N., S. W.	Clear. Overcast. Thermom. 58° at day light.
4	63	66	69	N. W., N. E.	Clear. Thermom. 56° at 6 A. M.
5	64	69	73	N. E., S. E.	Clear. Flying clouds. Thermom. 52° at sunrise.
6	67	70	74	E., S.	Clear.
7	70	76	76	S. W., S. by E.	Clear. Overcast. Thermo. 58° at sunrise.
8	64	66	64	N. W.	Cloudy.
9	63	68	69	N. W.	Clear. Thermom. 52° at sunrise.
10	58	62	66	N. W. fresh.	Clear. Thermom. 50° at sunrise.
11	62	66	68	N. W., S. W.	Clear. Thermom. 47° at sunrise.
12	64	70	73	S. W. fresh, S.	Clear. Thermom. 52° at daylight.
13	70	74	79	S. W. fresh.	Clear.
14	72	78	78	S. W.	Clear. Cloudy. Small shower.
15	72	79	80	S. W.	Clear.
16	70	73	73	S. E. fresh.	Cloudy. Hard showers. Thunder.
17	69	73	73	N. E.	Cloudy. Smart showers.
18	66	71	72	N. W.	Clear.
19	63	70	71	N. W.	Clear.
20	68	75	78	S. W. fresh.	Clear.
21	60	61	66	N. E.	Cloudy. Smart shower at night.
22	66	69	74	N. E.	Cloudy. Clear.
23	70	75	76	E., S. E.	Cloudy. Clear. Small rain at night.
24	74	77	78	N. W. fresh.	Clear.
25	55	57	61	N. W., N. E.	Cloudy. Thermom. 52° at 6 A. M.
26	58	64	66	N. E.	Cloudy. Thermom. 56° at 6 A. M. Rain at night.
27	61	64	65	N. W.	Cloudy.
28	58	63	65	N. W. fresh.	Clear. Thermom. 51° at sunrise.
29	57	66	67	E., S. E.	Clear. Thermom. 48° at daylight.
30	61	65	69	S. W. fresh.	Clear. Thermom. 50° at 7 A. M.

Total rain during the month - - - - 3 inches.
Mean temperature - - - - - 68.43° Fahrenheit.
Decrease of heat from last month - - - 7.48°
Maximum - - - - - - - - 80°
Minimum - - - - - - - - 55°
Range of thermometer - - - - 25°

Hottest day, 15th—Coldest day, 25th.

Comparison with September, 1824.

Mean temperature - - - - - 2.10° greater this year.
Maximum - - - - - - - - 2° less.
Minimum - - - - - - - - 3° greater.

September 2d.—Frost occurred in some parts of the state of Massachusetts, which injured the tender plants. In Quebec, on the same day, there was ice the eighth of an inch in thickness.

Augusta, Me. September 3d.—For several weeks past there has been very little rain. The earth was dry to a considerable depth. Vegetation was withering under a burning sun; and to finish the gloomy picture, the woods for a great distance around us in numerous places, have been on fire for more than a week. The atmosphere was filled with smoke. Objects could not be seen at a great distance in the day time. The woods are also extensively on fire along the Penobscot. A smart thunder shower, however, on the night of the 31st ultimo, in a few minutes extinguished all the fires, and completely purified the atmosphere.

Camden, N. J.—On the morning of the 9th and 10th there was considerable white frost in the country, so as to check the growth of some of the tender species of vegetables, sweet potatoe vines, &c.

New Orleans, September 10th.—The weather has been unusually cool and dry for the last few days. The Mississippi is now within a few inches of the lowest stage of the water, and the Ohio is nearly in the same way.

Philadelphia.—On the 10th and 11th a white frost was apparent on all the low grounds in the vicinity of the city.

Annapolis, September 13th.—A comet is now visible every clear morning. On the 12th it was observed about 2 o'clock in a direction some degrees east of the Pleiades.

Norristown, Penn. September 14th.—For several mornings past we have had white frosts and cool weather. The frost was not so heavy as to injure the buckwheat.

Petersburg, Va. September 19th.—There was a white frost in the morning. As indicative of approaching cold weather, the wild pigeons are more abundant in this vicinity than they were ever before known.

New York, September 21st.—A brilliant comet may be seen every clear evening after 11 o'clock. It is situated in Taurus, making nearly an equilateral triangle with Aldoberan, and the Pleiades to the westward of them. The tail is long and luminous, which is as usual opposite the sun.

September 23d.—An earthquake was experienced at Port Spain, Trinidad, the shock of which was so severe that it shook down several houses. The same shock was felt at Granada.

September 29th.—The White Mountains of New Hampshire were covered with snow for the first time this season.

OCTOBER, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	60	67	69	N. W.	Clear.
2	65	74	75	W., N. W.	Clear.
3	61	71	73	S. E.	Overcast.
4	71	75	71	S. W.	Cloudy. Rain.
5	70	75	78	S. W.	Cloudy. Rain.
6	71	76	78	S. E., S.	Clear.
7	68	75	77	N. W.	Clear.
8	69	70	70	W., N. W.	Clear.
9	71	73	68	S. E.	Cloudy.
10	63	70	74	S. E.	Overcast.
11	70	72	73	S. W.	Cloudy. Light showers.
12	56	62	62	N. E.	Flying clouds.
13	57	61	62	N., N. W.	Clear.
14	59	63	64	N. W.	Clear.
15	68	69	70	W., S. W.	Clear.
16	61	66	69	S. E., W.	Clear.
17	47	51	53	S. W.	Clear.
18	44	46	47	N., N. E.	Overcast.
19	41	45	49	N., N. E.	Clear.
20	46	49	52	W., S. W.	Clear.
21	52	56	52	W., N. W.	Clear.
22	40	46	49	N. E.	Cloudy. Clear.
23	49	54	67	N. E.	Clear. Cloudy.
24	52	56	56	S. E., S.	Overcast.
25	44	49	51	N. E.	Clear.
26	52	65	68	N. E., S.	Cloudy. Clear.
27	67	69	69	S.	Cloudy. Rain.
28	42	49	45	N. W.	Clear.
29	41	48	49	N. W.	Clear.
30	46	59	60	S. W., S.	Cloudy. Clear.
31	48	54	58	W., N. W.	Flying clouds.

Total rain during the month - - - - - 1.22 inches.
Mean temperature - - - - - 60.47° Fahrenheit.
Decrease of heat from last month - - 7.96°
Maximum - - - - - - - - - 78°
Minimum - - - - - - - - - 40°
Range of thermometer - - - - - 38°

Hottest day, 6th—Coldest days, 19th and 22d.

Comparison with October, 1824.

Mean temperature - - - - - 3.47° greater this year.
Maximum - - - - - - - - 8° greater.
Minimum - - - - - - - - 2° greater.

St. Augustine, October 2d.—A tremendous gale occurred about 2, A. M. It blew with the greatest force from the N. E. the surf breaking against the

houses, and the streets swimming in water. In a short time the wind shifted to the S. E. and the gale moderated. The houses have been much damaged, and all the oranges are gone.

The same gale prevailed at Darien, Georgia. The tide rose uncommonly high, covering many of the swamp plantations in the neighbourhood.

Montreal, October 6th.—The autumnal season in Canada has always been celebrated for the beauty and serenity of the weather; but the present autumn has exceed all others, not only for its uniform mildness and salubrity, but for its uncommon warmth. The weather has been as hot as it generally is in the month of June. Every day of the present month has been extremely warm, the thermometer frequently rising above 80°.

October 7th.—There have been very extensive fires in the woods in the state of Maine for some weeks past. The country for thirty miles in extent on the Penobscot, appears like "a sea of fire." In the vicinity of the heaviest fire, the ground actually trembled, and the roaring of the flames, which sounded like thunder, was heard at the distance of twelve or fifteen miles. Hawks and other birds were killed by the heat, and at some parts of the river the fish did not escape. Bass of from twenty to forty pounds, and salmon, shad, and trout were found dead in shoal waters.

Boston, Mass. October 8th.—A most remarkable change has taken place in the atmosphere since yesterday. The mercury in the thermometer stood at 84° at 2 o'clock. The wind at midnight changed to the N. E. and the mercury at half-past one to-day stood at 61°. Accompanying the cold east wind, came a large cloud of smoke, which has given a peculiarly brassy hue to external objects. It is extremely penetrative, and affects the nostrils and eyes, producing a very sensible, smart and slight inflammation: it is quite difficult of respiration. The smoke is supposed to proceed from the extensive fires in the woods.

Carlisle, Penn. October 8th.—A comet has been visible in the southern heavens for some nights past. It is travelling fast to the south, and will soon disappear from our hemisphere. This comet is inferior in brightness and size to the one which appeared in 1811, nor can we discover in it even with the aid of a telescope any definite or distinct nucleus or body. It presents to the eye a mass of undefined matter, illuminated by a dusky fumid light. Its perihelion, or nearest distance to the sun is within the orbit of Mercury, while its aphelion or greatest distance extends nearly to the orbit of Jupiter.

It is worthy of remark that on the 7th inst. no less than four planets, viz. Jupiter, Mars, Venus, and Mercury, were all in the same sign, and the three first not many degrees apart. They all rose about 3 o'clock in the morning, following each other in a train.

Washington City, D. C.—October 9th was the darkest Indian summer day we have seen for several years.

Uniontown, Penn. October 9th.—A rainbow appeared at sunrise. The first bow was in places unusually bright, and was composed in one place of six concentric arcs of red, in other places five, and most parts of three. The second bow, or water-bow as it is sometimes termed, was quite as singular, having two brilliant and reversed arcs of colours.

Philadelphia, October 14th.—Strawberries of a second crop are in market.

Buffalo, Niagara, October 17th.—The first snow made its appearance to-day. It was preceded by the flight of wild geese.

October 17th.—A severe gale of wind, with snow, was experienced at Erie, Penn. and it was feared much property was lost in the lake.

Harrisburg Penn. October 18th.—The mountains are covered with snow, and a piercing north-wester prevails.

Huntingdon, Penn. October 18th.—The earth is covered with snow at this place.

Raleigh, N. C. October 19th.—We were greeted with frost for the first time this season. Before the present week the weather was very mild. It is now clear and cold, and health rides upon the breeze.

Petersburg, Va. October 21st.—During the whole of the past week, the mercury in the thermometer ranged from 70° to 80° and the weather was hot and oppressive. On the morning of the 18th there was a keen northern blast, with a cloudy atmosphere, and for about half an hour a most untimely sprinkling of snow.

Mount Carbon, Penn. October 21st.—This season has on the mountains been marked with great extremes of temperature and weather. We had not a drop of rain for months, and then it rained in torrents. We had excessively hot weather, and then very cold. A week ago it was oppressively warm, now it is pinching cold, and the north-wester of the 18th and 19th was as piercing and severe as any during last winter.

Alexandria, D. C. October 24th.—The excessive drought which has prevailed throughout the past summer, is without a parallel in this part of the country.

Canada.—Although the high mountains in the lower province were covered with snow as early as the 22d of September, the weather from the 1st to the 6th of October was unusually warm at Quebec. The thermometer on the 6th having risen to 80°.

Quebec, October 26th.—Snow fell for the first time to the depth of nearly three inches.

NOVEMBER, 1825.

Reading, Penn. November 8th.—For the last seven or eight days the weather has been very mild, much resembling the month of May.

Boston, Mass. November 19th.—A large flock of wild geese passed over the city pursuing their course to the south. This is a strong indication of the setting in of winter. The thermometer this morning was at less than 20° above zero.

November 20th.—Above Schenectady the canal is partly closed with ice, and on Sunday morning the ground was covered with snow at Albany, New York.

Boston, Mass. November 22d.—Snow fell the greater part of to-day.

November 24th and 25th.—At Montreal it snowed almost incessantly, and at Quebec sufficient snow had fallen to make the winter roads excellent.

New York, November 29th.—It is quite cold at Albany—the canals being closed, and the rivers choaked with ice; but here we have yet a mild and genial atmosphere.

NOVEMBER, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	46	56	57	W., S. W.	Clear.
2	47	55	54	N. W., W.	Clear.
3	42	47	48	N. W.	Clear.
4	41	50	51	W., N. W.	Clear.
5	43	55	56	S. W.	Cloudy.
6	49	68	70	S. W.	Cloudy. Clear.
7	51	59	60	S. E., E.	Overcast.
8	47	56	58	N. W., S. W.	Cloudy. Clear.
9	50	50	48	N. W.	Clear.
10	39	46	46	N., N. W. fresh.	Overcast.
11	38	44	49	N. W.	Clear.
12	39	47	47	N. W.	Clear.
13	51	58	57	S. W.	Clear.
14	45	48	46	S. E., S. W.	Cloudy. Rain.
15	41	47	48	E., S. E.	Flying clouds.
16	42	45	46	W.	Cloudy. Light rain.
17	41	43	47	W., N. W.	Clear. Overcast.
18	32	36	34	N. W. fresh.	Clear.
19	30	33	35	N. W.	Clear.
20	37	40	46	N. W.	Clear.
21	38	42	42	N. W., W.	Clear. Cloudy.
22	39	43	47	S. W.	Overcast.
23	33	39	39	W., N. W.	Clear.
24	37	41	43	W., S. E.	Cloudy.
25	38	42	43	S., S. E.	Cloudy.
26	34	40	42	N. W.	Clear.
27	38	47	48	W., S. W.	Overcast. Clear.
28	37	41	46	S., S. W.	Clear.
29	37	45	49	S. W., N.	Flying clouds.
30	43	47	46	N. E.	Cloudy. Rain.

Total rain during the month, - - - - 1.41 inches.
Mean temperature, - - - - - - 45.37° Fahrenheit.
Decrease of heat from last month, - - 15.10°
Maximum, - - - - - - - 70°
Minimum, - - - - - - - 30°
Range of thermometer, - - - - - 40°

Hottest day, 6th—Coldest day, 19th.

Comparison with November, 1824.

Mean temperature, the same within a small fraction.
Maximum, - - - - - - - 8° greater this year.
Minimum, - - - - - - - 1° less.

DECEMBER, 1825.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	46	49	50	N. W.	Cloudy. Rain.
2	48	50	50	N. W.	Clear.
3	42	46	45	N. W.	Cloudy. Rain.
4	40	45	41	N. W.	Cloudy. Rain.
5	32	38	37	N., N. W.	Clear.
6	27	31	33	N. W.	Clear.
7	35	39	40	N. W.	Clear.
8	32	37	39	N. W.	Clear.
9	48	50	47	W., S. E.	Overcast.
10	31	33	33	N. W.	Clear.
11	29	32	34	N., N. W.	Clear.
12	26	27	26	N. W. fresh.	Clear.
13	12	14	15	N. W. fresh.	Clear.
14	20	27	31	W., N. W.	Overcast. Clear.
15	32	38	41	S. E., W.	Flying clouds.
16	36	43	45	S. W.	Cloudy. Rain.
17	52	56	55	S. W.	Cloudy. Rain.
18	41	46	46	S., S. W.	Overcast.
19	35	36	36	S. W.	Cloudy. Rain.
20	34	38	35	N. W., W.	Clear.
21	26	29	30	N. W.	Clear.
22	27	27	28	N., N. W.	Clear.
23	19	21	26	N. E., N.	Clear.
24	26	29	31	E., S. E.	Flying clouds.
25	42	43	46	S. W.	Cloudy. Rain. Foggy.
26	29	34	30	W., N. W.	Clear.
27	25	33	33	N. W.	Clear.
28	30	31	41	N. W., S. E.	Clear.
29	33	36	34	N. E.	Cloudy. Rain.
30	38	38	40	N. E.	Cloudy. Rain.
31	40	42	42	N. E.	Cloudy. Rain.

Total rain during the month, - - - - 3.60 inches.
Mean temperature, - - - - - 35.90°
Decrease of heat from last month, - - 9.47°
Maximum, - - - - - - - 56°
Minimum, - - - - - - - 12°
Range of thermometer, - - - - - 44°

Hottest day, 17th—Coldest day, 13th.

Comparison with December, 1824.

Mean temperature, - - - - - 3.35° less this year.
Maximum, - - - - - - 5° less this year.
Minimum, - - - - - - 16° less.

Quebec, December 1st.—It is a singular fact that the river is now perfectly open, and that there is not a piece of floating ice to be seen. So extraordinary

is the mildness of the weather, that the buds of the lilac are bursting into leaf, and the early trees are as much advanced as they usually are at the end of March.

Mount Carbon, Penn. December 2d.—The weather continues remarkably fine, though the river and canal are encumbered with ice.

Norristown, Penn. December 7th.—The present uncommon drought which exists in this place and vicinity, prevails in every section of the county. Many springs and stream which heretofore afforded an abundant supply have failed. Almost every well in this borough is now dry. No rain of consequence has fallen since August last. Schuylkill river at present is remarkably low.

December 12th.—There was a snow storm at Norfolk and Richmond, Virginia. At the latter place the ground was covered with snow to the depth of three or four inches.

Providence, R. I.—December 13th was the coldest day experienced here for the last four years. The thermometer was at 13° below zero at 7 A. M. and at 4° below at 10 the same evening.

December 14th.—At Boston, Mass. the mercury fell 4° below zero—20° colder than at any time last winter. The Connecticut river is closed with ice at Middletown. At Albany the mercury fell to 6° below 0.

New Jersey, December 17th.—The whole country has been suffering for weeks under the effects of an oppressive drought. The springs are in many places either entirely or almost dry. The cold of this week has increased the difficulty.

The temperature of the whole year was dry and hot. The summer was remarkably so, and some sections of the state have suffered considerably by the drought; but although the crops have not been abundant as usual, we had reason to rejoice in the almost total disappearance of the fevers which had afflicted the country for three preceding years.

The spring of the year 1825 was the coolest, and the summer the hottest that has occurred for many years. If all the hopes of our farmers have not been realized, they have still cause to be thankful, that no *serious deficiency in the products of the year* has happened.

Corn was scarce, owing to the dry weather. Wheat generally good, fair in quality and quantity. The crops of rye, oats, and hay, tolerable; not however so abundant as common. The oats in particular deficient. Pasture, in the spring, rich and fine: the very dry and hot weather injured it in the summer and fall. Peaches scarce, and of an inferior quality. Apples very bad. An almost total failure in some places, in consequence of the late frosts in the spring, and drought in the summer. All other fruits generally not so fine as usual. Green peas moderate. Potatoes very poor and scanty. They sold, during the fall, at one dollar a bushel in the city. The present singular deficiency is, no doubt, attributable to the state of the weather in August and September. Fall turnips large and abundant. Our winter vegetables, celery, cabbage, ruta baga, beets, radishes, &c. pretty good.

Result of all the Meteorological Observations made on Tinicum Island in the year 1825.

Months.	Thermometer.						Number of Fair days.	Number of Cloudy days.	Depth of Rain.	Prevailing Winds.	Prevailing Weather of each Month.
	Mean Temperature.	Maximum.	Minimum.	Range of Thermom.	Hottest days.	Coldest days.					
January	35.02°	47°	20°	27°	16th	30th	17	14	1 69-100	N. W., S. W.	Fair, dry and mild.
Feb.	35.99	54	17	37	13th	4th	8	20	4 91-100	N. E., S. W.	Cloudy, wet and disagreeable.
March	47.80	66	36	30	17th	1st, 2d, 26th	15	16	4 29-100	N. E., N. W.	Cool, wet and unpleasant.
April	56.11	71	34	37	29th	3d	20	10	1 2-100	N. W., N. E.	Fair, pleasant and dry.
May	65.91	81	49	32	25th	4th	24	7	1 64-100	S. W., S., S. E.	Very fair, dry and warm.
June	76.49	88	59	29	12th	4th	18	12	3 34-100	S. W., N. W.	Hot, moist and favourable to vegetation.
July	80.37	91	70	21	21st, 22d, 23d	2d	23	8	1 96-100	S. W., N. W., N. E.	Very hot, dry and fair.
August	75.91	89	60	29	16th	19th	21	10	3 69-100	N. E., S. W., N. W.	Moderate, fair and agreeable.
Sept.	68.43	80	55	25	15th	25th	20	10	3	N. W., S. W.	Fair and moderate, cool.
October	60.47	78	40	38	6th	19th, 22d.	17	14	1 22-100	N. W., N. E., S. W.	Dry and fair.
Nov.	45.37	70	30	40	6th	19th	16	14	1 41-100	N. W., S. W.	Dry, moderate and pleasant.
Dec.	35.90	56	12	44	17th	13th	16	15	3 60-100	N. W.	Cold and variable.
							215	150	31 77-100	N. W., S. W.	

Prevailing winds of the year, N. W., S. W.
Total rain of the year, 31 77-100 inches.
Hottest month, July.
Coldest month, February.
Greatest range of thermometer occurred in December, 44°.
The mercury was the highest July, 21st and 23d, 91°—lowest, December 13th, 12°.
Thunder and lightning occurred in sixteen days.
Mean temperature of the year, 56.98°.
Mean temperature of 1824, 55.36°.

MEDICAL EDUCATION AND INSTITUTIONS.

ART. XIV. *Account of the Hôtel Dieu at Paris.* By ELISHA BARTLETT, M. D. of Lowell, Mass.

WHILE a resident at Paris in 1826 and 1827, I had in contemplation the publication of a small volume devoted to some account of the medical institutions of that city. Preparatory to my departure to France, I felt the necessity of something of this kind—of some work which should not only contain a more detailed and correct account of the medical establishments of Paris than is to be found in this country, but which should also serve in some degree as a guide and directory to the American medical student, while pursuing his studies in the French capital. These considerations induced me, while there, to make some researches and to gather materials with reference to this object; but want of time precluded the possibility of investigations sufficiently extensive to justify *making a book.* Should they be deemed, however, of sufficient interest to the profession, it will give me pleasure to see them in the American Journal. They will contain a condensed historical notice of the principal hospitals, statistical tables showing the number of patients, the kinds of diseases, and the rate of mortality, and brief personal sketches of a few of the most distinguished surgeons. In addition to the motives which led me to *collect* these materials, it may be added that the number of Americans who annually resort to the French metropolis for the purpose of completing their studies—the important and signal improvements which have been made by the great men of Paris in every department of our science during the present century—the achievements of such men as BOYER, LARREY, MAGENDIE, DUPUYTREN, and ROUX, have created a deep and progressive interest in whatever occurs in that city in relation to medicine and surgery, which induces me to offer the following facts and observations for publication, with the hope that they may not prove unacceptable to the intelligent and inquisitive members of the profession.

The present paper will be devoted to a notice of the *Hôtel Dieu.*

This hospital is the oldest and one of the most extensive of Paris. The period at which it was founded is not known: but it must have been very remote, as we find it spoken of so early as 829. The his-

tory of this institution from its commencement down to 1793, presents a frightful picture of suffering, and an appalling table of mortality. Like other and similar establishments, it unquestionably had for its noble object the relief and mitigation of human suffering and disease among the unfortunate and indigent, but its history proves that for hundreds of years, indeed till within a comparatively short period, the evil produced by it was incalculably greater than the good. To be carried to the Hôtel Dieu was almost equivalent to a sentence of death. The causes are obvious in the situation and administration of the hospital. Five or six patients were not unfrequently placed in the same bed—diseases of every description were indiscriminately thrown together—the beds or straw, as the case might be, on which the patients lay, were excessively filthy—the rooms were in the same situation, and badly ventilated—so that apart from the medical treatment which the patients received, we have sufficient cause for the great portion of deaths of those who entered the hospital.

Some idea may be formed of the situation of the Hôtel Dieu, from the record of the first royal donation which it received. This was as late as 1228. It was made by Philip Augustus, then king of France, in the following words. "We give to the House of God, situated before the grand church of the very happy Mary, *all the straw* of our chambers and of our house at Paris, each time that we shall quit the city to go to sleep elsewhere."

The following extract is from a report made in 1816, to the council general of hospitals, on the ancient state of the Hôtel Dieu.

"The beds were heaped together in the wards, and the patients were heaped together upon the beds. There were often four and sometimes six placed in the same bed. The administrators themselves of this establishment, in a memoir published in 1767, and their predecessors more than a century before, in 1661, had stated the same facts in an account given of this hospital. They were seen even on some occasions, to place the patients one above another, by means of hammocks, which they ascended by a ladder. The government, uninfluenced by the solicitations of the friends of humanity, remained insensible to so many evils. Chamaussit, Duhamel, Petit, &c. had earnestly but in vain insisted on the necessity of removing the institution to some more salubrious quarter of the city, or of changing and reforming its actual administration, when, in 1786, a memoir was published on the urgent and pressing necessity of an immediate removal. It proposed the construction of four hospitals without the barriers of the city, to which the patients from the Hôtel Dieu should be removed. Louis XVI. ordered the Academy of Sciences to make a report on the state of the hospital, and the following are some of the results relative to its mortality compared with that of La Charité. In fifty-two years, dating back from the time of the report, the number of deaths out of 1,108,741 admitted into the hospital, was 244,720—one to each four and a half. The mortality at La Charité, during the same period, was

one in seven and a half; from which it appeared that the Hôtel Dieu in these fifty-two years, deprived France of 99,044 citizens, which she would not have lost, had this hospital been as well situated and as wisely administered as La Charité. This loss, which for the fifty-two years, was 1906 each year, was about *one-tenth* of the whole annual loss of the city.

"The king ordered the proposed plan to be carried into effect, and in a prospectus invited the citizens to concur with him by gifts and subscriptions in this work of benevolence. A generous emulation was created among all classes, and considerable sums were collected for the execution of the work. This was violently opposed by the administration of the hospital; and the state of the finances and precursors of the revolution, dissipated the amount of some millions of francs, and defeated the enterprize. At this period there were 1994 beds, while the mean number of patients was 2500 and the extreme number from 5 to 6000: so it was still necessary to continue the murderous usage of putting two, three, and even four patients together, who should poison each other by their mutual emanations, and the sick, the dying, and the dead, were often laying in the same bed beside each other.

"The Hôtel Dieu continued in this deplorable situation till 1793, and it is only from this period that the institution may date its reformation. The plan of building the four hospitals without the city was abandoned—the buildings in the neighbourhood of the Hôtel Dieu, which prevented a free circulation of air about the hospital, were demolished—the wards considered unhealthy were closed—new ones were added, and the number of beds in each diminished—the windows were extended down to the floor, and thus a free ventilation procured—the most scrupulous attention was paid to the removal of filth and the preservation of cleanliness, and the patients according to the nature of their diseases, were distributed in separate halls, or conveyed to other hospitals."

Such is a succinct history of this, the oldest and one of the most interesting hospitals of Paris. It is situated on both sides of the branch of the Seine, forming the southern boundary of the island of the Palace, and is irregular in its structure and the arrangement of its interior. This is the case with most of the French hospitals, as the greater part of them are established in buildings formerly used as prisons, churches, or convents, so that we seldom meet here that beauty of architectural proportions, which distinguishes many of the hospitals of Holland, England, and the United States. The portico which forms the entrance to the Hôtel Dieu is modern, and exhibits a fine specimen of the massy and simple elegance of the Grecian Doric.

This hospital has been, since its reformation, not only a place of refuge and relief for the unfortunate sick and wounded, but a valuable school for the study and advancement of that divine art whose succours are gratuitously afforded to its inmates. There are evils connected with its location in the centre of a great and active capital which are irremediable, but every thing which the wisest internal re-

gulations, and the assiduous services of talented and illustrious professional men can do in effecting its benevolent intentions, has been carried into execution, and faithfully attended to. The halls are vast, clean, well ventilated, and not crowded with beds. The number of these is 1262, of which 674 are appropriated to men, and 588 to women. The number of wards is twenty-three. The two surgical halls for men are in a line, on the second floor, and are usually attended, one by Dupuytren and the other by Breschet. The female ward is under the care of Sanson. During the clinical course of Dupuytren, the three wards are visited by himself in succession, in order to embrace in his course every variety of disease existing in the hospital. All patients, wounded and sick, are received at the Hôtel Dieu, excepting infants, incurables, mental alienations, lying-in women, and individuals attacked with venereal or chronic affections.

M. Dupuytren, the surgeon in chief, says the improvements which have been made in the administration and regulation of the hospital, have rendered it one of the most salubrious in the capital. The sight and the smell are no longer disagreeably affected as they formerly were—those adynamic fevers rarely occur, which the air, charged with concentrated putrid miasm, formerly developed in so great numbers—and hospital gangrene is seldom seen; the course of clinical surgery sometimes closing without a single instance of this affection. The operation of the trepan practised in those cases where its employment is indicated, and under circumstances which are not beyond all resource, succeeds as well as other operations, and fails only from analogous reasons. In return, and probably on account of the precautions taken to favour the free entrance and circulation of air in the hospital, there occurs a great number of inflammations. In effect, pleurisies, pneumonias, and peritonitis have increased, in the same proportion that putrid and malignant fevers, gangrenes, &c. have diminished, and a great proportion of the deaths which occur in the surgical wards, are occasioned by these inflammatory affections. Every individual who has died in the halls of surgery for several years has been examined after death, and the surgeons of the Hôtel Dieu are convinced, as Desault often said, without being able to furnish proof of it, that a great majority of deaths which occur during the treatment for surgical affections, are occasioned by internal inflammations, and that in most cases these inflammations exist to the number of two, three, or four in the same subject. This observation has not been lost sight of in the treatment of the surgical diseases. Refrigerants and diaphoretics have almost universally superseded the

use of tonics, and general and local bleedings have taken the place of excitants and stimulants. There is hardly a single pound of cinchona given internally, and a few pounds used for external applications, for nearly three thousand patients received and treated annually in the surgical wards of this hospital.

Fractures are nearly all treated by position—some of them, such as those of the neck of the femur and humerus solely in this manner; the others by position, aided by apparatus, designed rather to prevent motion than to act with force upon the limbs. Continual extension is used in no case whatever. The frightful apparatus formerly used for the reduction of fractures and dislocations, has been totally banished, and has given place to milder methods. Operations for strangulated hernia are done at the moment the patients are received. The operation for cataract is uniformly by couching, and is always performed at the bed of the patient, by which the inconveniences and danger of moving them after the operation is avoided.

The observations on the treatment at this establishment will be concluded by a few remarks on that adopted by some of the physicians in the halls of medicine, and these remarks are applicable to most of the other hospitals of Paris. Many of the physicians still adhere to the ancient notions of pathology, and adopt the opinions of Brown in relation to the employment of tonics and stimulants. Others advocate the principles and follow the practice of the *reformer*, Broussais, the great chief of physiological medicine. Employing in almost every case, diet, demulcent drinks, local and general bleedings, baths and emollient applications; they proscribe the greater part of the other therapeutic agents. Both parties appeal to the success of their practice as proof of its correctness, and in confirmation of the soundness of the principles on which it is founded.

The visits are made before breakfast, early in the morning. Those of Baron Dupuytren commence at seven o'clock in the winter, and an hour or two earlier in the summer. At eight he begins his clinical lecture in the amphitheatre, which continues one hour. After which the operations are performed by himself or one of the other surgeons. Then follows the gratuitious consultations and advice to persons not in the hospital. The visits, lectures, and operations of Dupuytren are attended by a great number of students.

Statistical Table, from the Annual Report of 1822.

	Number of Beds—Medicine.	Surgery.
Men	398	151
Women	388	63

	MEN.			WOMEN.			Total general for 1822.	Total general for 1821.
	Med.	Surg.	Total	Med.	Surg.	Total		
In the hospital, Jan. 1, 1822.	318	142	460	322	58	380	840	810
Admitted during the year -	4,288	1,767	6,055	3,879	755	4,634	10,689	11,663
Dismissed - -	3,664	1,605	5,269	3,118	686	3,807	9,076	9,448
Deaths - - -	685	154	839	786	65	851	1,690	1,685
Remaining 31st of Dec. 1822 -	257	150	407	297	59	356	763	840
Rate of mortality, one for - -	6.72	12.39		5.34	12.50			
Mean number of days in the hospital - - -	7	12		5	12			

The ages which gave the greatest number of patients were for the men, from fifteen to forty years; for the women from fifteen to thirty-two.

The cures in medicine were catarrhs, diarrhœas; continued, bilious, and gastric fevers; inflammations of the stomach, peritoneum, and pleura; rheumatisms, and recoveries after delivery.

The deaths, aneurisms of the aorta, apoplexies, pulmonary catarrhs, catarrhal and adynamic fevers, cancers of the uterus, tubercular phthisis, peritonitis, and pneumonias.

I have given the table for 1822, because it is more minute and circumstantial than those which have since been made. In subsequent reports, the medical and surgical patients are not separately given in distinct tables, and as the difference in the mortality of the two classes is very considerable, any inference drawn from the *average* mortality could not be relied on, and must consequently be less important and interesting. The report of 1822 may be taken as a pretty correct example of the actual population and proportionate mortality of this hospital.

The following is a list of the surgical operations performed the same year at the Hôtel Dieu. Nearly all the important operations during my attendance at the hospital, were by Dupuytren. The operations for stone are performed by the three surgeons successively, each one operating differently from the other. The object of this arrangement is to test practically the advantages or disadvantages of each of the three methods. That of Dupuytren is the bi-lateral—of Breschet the old lateral, and of Sanson the recto-vesical.

Surgery of the Hôtel Dieu for the year 1822.

Obstetric cases	5	Fractures of thigh (body of bone)	24
Vaccinations	9	——— of thigh (neck of bone)	26
Setons	59	——— of leg	41
Incisions for opening abscesses, boils, &c.	254	——— of tibia	16
Paracentesis abdominis	5	——— of fibula	18
Hydrocele by injection	6	——— of patella	4
——— by incision	2	——— of calcaneum	2
Empyema	1	Lithotomy (men)	4
Extraction of foreign bodies	4	——— (women)	2
Fissures of the anus	6	Removal of stone from urethra	2
Fistula lachrymalis	45	Sarcocele	4
——— in ano	5	Phymosis	5
——— recto-vaginal	2	Paraphymosis	2
——— vesico-rectal	1	Introduction of catheter	180
Section of the sterno mastoid muscle	1	Amputation of arm	3
Hare-lip	4	——— of forearm	2
Trepan	1	——— of fingers	5
Cataract	62	——— of thigh in the articulation	1
Extirpation of eye	2	——— of thigh	2
Reduction of uterus	4	——— of leg	7
——— of rectum	2	——— of toes	2
Artificial anus	2	——— of tumours of breast and other parts of the body, encysted tumours, &c.	88
Ligature of radial artery	1	Amputation of penis	1
——— of femoral artery	1	Strangulated hernias	18
Cauterizations for hæmorrhages, bites, &c.	19	Hernias reduced	15
——— for cancer of skin	11	Extraction of bone	4
——— for neck of uterus	3	Rupture of ligament of patella	1
Fractures of cranium	5	——— of the tendo-achilles	1
——— of lower jaw	3	Luxation of lower jaw	4
——— of sternum	1	——— of clavicle	3
——— of ribs	29	——— of humerus	14
——— of pelvis	5	——— of elbow	5
——— of clavicle	21	——— of fingers	2
——— of scapula	2	——— of femur	3
——— of arm	24	——— of knee	1
——— of forearm	16	——— of patella	1
——— of radius	27	——— of foot	1
——— of cubitus	5	——— of metastarsus on the tarsus	1
——— of metacarpus	1		

I shall close this article with a short and necessarily imperfect sketch of Baron Dupuytren, the surgeon in chief, and the most distinguished of Paris, and perhaps of the world. He is now fifty years of age. He has a noble and striking physiognomy, strongly indicative of his original and vigorous intellect. The general contour of his head, and the outline of his features bears considerable resemblance to the portraits of Napoleon. His manner varies exceedingly with the *mood* in which he happens to be. He is generally grave, and his manner rather cold and forbidding. But he is not always the lion, and he is never more interesting than when indulging, as he often does, his talent for playful humour and raillery. He never appears to enjoy himself so much as when detecting a falsehood in the answers

of his patients, and in stripping off the veil of equivocation and evasion to discover the truth. When he is inclined to be irritable, these reluctant and unsatisfactory replies seldom fail to put him in a passion, and he can then only be appeased by simple and direct answers. Some anecdotes are told of him, which partake of the most cold-blooded cruelty; but in following his visits for several months, I have never seen any thing of the kind, and it may be believed that those related of him are exaggerated, or that the irritating and provocative circumstances on the part of the patient have been kept in the back ground. Certainly no man can be more winning in his manners, more insinuating in his address, than Dupuytren when he chooses to be. I have never seen a man, who, by the fascination of his manner, and the admirable adroitness of his conversation, could so readily calm the fears and quiet the apprehensions of a patient when about to submit to an operation. I have seen a child fourteen years old, talking and laughing with him, when actually placed on the table and tied for lithotomy.

In regard to his professional character and merits, they are too well known and universally appreciated to require any notice. Notwithstanding the boldness and hardihood of many of his operations, no surgeon in the capital is so much distinguished for his caution and *prevoyance.* He examines diseases carefully and minutely, is quick in his conception, and wonderfully correct in his prognosis, which he seems fond of giving. The extreme uncertainty of the success of any considerable operation in the French hospitals, and the frequency of the fatal termination of such cases, have taught him a degree of prudence, which, to one not aware of these circumstances, might seem excessive and unnecessary. He always watches for the most favourable situation of the patient, before performing any important operation, and delays it so long as a single symptom remains which appears unfavourable, and which may be removed.

His manner as a lecturer is different from that of most of the Paris professors; excepting at times, he makes use of but little gesture, and he is generally wanting in animation. He sits loungingly in his chair, the end of his thumb between his lips, and speaks low and lazily. This is always the case at the beginning of a lecture. Frequently, however, he grows animated, becomes more interested in his subject, and speaks with more energy. He is then a model for a lecturer—always articulates distinctly and deliberately, and is celebrated for the correctness and polish of his language, and the elegance of his pronunciation.

Lowell, Massachusetts, April 5, 1828.

REVIEW.

ART. XV. *Pathological and Practical Researches on the Diseases of the Brain and the Spinal Cord.* By JOHN ABERCROMBIE, M. D. Fellow of the Royal College of Physicians of Edinburgh, &c. Edinburgh, 1828. One volume, octavo.

THIS work is a valuable contribution to our means of information on the pathology and symptomatology of diseases affecting the central portion of the nervous system. It is executed with manifest care, on a well arranged and well digested plan, and from the predominance of personal dissections and observations, is fairly entitled to the reputation of originality. It confirms and illustrates the reports of the continental pathologists, MM. LALLEMAND, MARTINET, ROSTAN, GENDRIN, BAYLE, &c.

It is divided into four parts, each of which is subdivided into sections, and amplified by an appropriate appendix. The first part treats of inflammatory affections of the brain; part the second, of apoplectic affections; part the third, of organic diseases of the brain; and part the fourth, of the diseases of the spinal cord and its membranes.

The first part, or that which describes the inflammatory affections of the encephalon, has the first section applied to their outline or general characters, as marked by the abnormal sensibility of the head, by the motions and perceptibility of the eye, by the state of hearing, of speech, of intelligence, of the circulation, of the locomotive powers, of the secretions, and especially of that of the urine. The author seems to be well aware of their great variety in grade, of the unsettled character of their symptoms, and admits that it is impossible to define them all in one general account.

Having stated facts of sufficient notoriety concerning the several parts of the encephalon, which become seats of disease, as its three membranes and the substance itself; he also sketches out the principal pathological features observable after death, to wit, serous effusion, false membrane, suppuration, ramollissement, (softening,) and some others. In regard to serous effusion or hydrocephalus, he remarks the erroneous opinion which had generally crept into medicine, but is now almost as extensively exploded; of the symptoms being caused exclusively by the compression of the brain, and not by the state of irritation, in which the organ is placed. Ramollissement, he says, con-

sists in a part of the cerebral substance being broken down into a soft pulpy mass, retaining its natural colour, but having lost its cohesion and consistence. It differs entirely from suppuration in having neither the colour nor the smell of pus, and in the pure milky whiteness of the brain being retained. We agree with Dr. A. in regard to the most common seats of it, being the fornix, the septum lucidum, and the corpus callosum, but especially the two first. Long before this mode of disorganization had attracted the notice of pathologists as one of frequent occurrence, we had been struck with its prevalence, especially in dropsical subjects, and had been taught by repeated experience to avoid them when a healthy brain was required for class demonstration.

The question is as yet undecided whether this state of softening is one of the terminations of inflammation; or as Mr. Rostan is more disposed to believe a peculiar and primary affection. Dr. Abercrombie thinks that each opinion is right in its place, and that the adoption of both is sustained by the facts adduced. In the very numerous autopsies of Mr. Rostan and his friends, a majority of the patients were more than sixty years of age, and the softening was chiefly observed in the external parts of the brain. Dr. A.'s patients, on the contrary, were of a more mixed kind in regard to age, were principally young persons and children, suffering from symptoms of acute hydrocephalus, and on dissection exhibited unequivocal inflammation, in the deep redness and suppuration of the cerebral matter surrounding the softened spot, and in the deposition of false membrane upon the nearest superfices. He says that "we may even observe in the different parts of the same diseased mass, one part in the state of ramollissement, another forming an abscess, while a third retains the characters of active inflammation." Dr. A. is, upon the whole, disposed to consider ramollissement as a gangrene of the brain; and that it was produced in the cases of Rostan by a failure in the circulation, but in his own cases by inflammation.

Dr. A. believes that idiopathic inflammation of the dura mater is of very rare occurrence. The only case he has seen, was in a young lady of twenty-two years, and terminated on the fifteenth day. It presented on dissection a purulent focus, of the size of a crown piece, between the os frontis and the dura mater; this spot of the latter was black, ulcerated on both surfaces, but not perforated, and was here and there thickened. The superior semicircumference of the right hemisphere was coated with thick purulent matter, and had beneath the arachnoidea an extensive adventitious membrane. The substance of the hemisphere was sound, excepting a dark livid colour of its surface.

The following is an instructive account of the dissection of a gentleman aged twenty, who died on the tenth day of intense earache; or in other words, an acute inflammation of the temporal bone, attended with cerebral symptoms. There was some effusion under the arachnoid of both hemispheres, and much of it in the ventricles; extensive ramollissement of the parietes of the lateral ventricles. The right temporal bone was carious, dark-coloured, very soft, and when cut discharged pus from its cavities. The adjoining dura mater was thickened and inflamed, and had externally a deposite of thick purulent matter behind the petrous bone. The tentorium was inflamed, and there was almost universal arachnitis of the cerebellum, extending into the fourth ventricle, and manifesting itself by a coating of lymph and thick flocculi of purulent matter.

The following dissection presents us with a strongly evolved arachnitis, (hydrocephalus internus,) of the ventricles. A child aged ten months, had fever, starting, vomiting, white tongue and costiveness for a week, when the symptoms abated, except the vomiting; but the pulse continued frequent. At the end of ten days the pulse became rapid, there was squinting and blindness, and in three days more death ensued after a convulsion. The autopsy exhibited the ventricles distended with six ounces of turbid fluid, with flakes of lymph floating in it. The lining membrane was thickened, easily separated by dissection, and was coated thickly with coagulating lymph. The septum was thickened, and the pineal gland distended with a greenish fluid. The arachnoid on the posterior part of the cerebellum to the extent of a crown piece, was thickened, covered by false membrane, and had pus beneath it.

Dr. A. having detailed several other cases of arachnitis in young adults and in children, some of which were attended with thickening, purulent, and fibrinous secretion, and others with only an effusion of serum, then draws the following inferences:—

1. "That in ordinary cases of hydrocephalus, the coma and other symptoms attending it, are not to be considered as the direct effect of the effusion, but of that morbid condition of the brain of which the effusion is the consequence.

2. "That we have no certain mark which we can rely upon as indicating the presence of effusion in the brain: slowness of the pulse, followed by frequency, squinting, double vision, dilated pupil, paralytic symptoms, and perfect coma, we have seen exist without any effusion.

3. "That all these symptoms may exist in connexion with a state of the brain, which is active, or simply inflammatory, while the disease is the subject of active treatment, and while by such treatment adopted with decision at an early period, we have the prospect of arresting its progress in a considerable proportion of cases. In all of them, the period for active practice is short, the

irremediable mischief being probably done at an early period of the disease." —Page 149.

In the section, (page 150,) treating of the causes of the inflammatory affections of the brain, he makes the usual allegations concerning eruptive fevers; suppressed evacuations, especially the menses; injuries; phthisis pulmonalis, and so on. The following is an interesting narrative of its connexion with ischuria ureteralis. A gentleman aged seventy, became incapable of passing his urine, and on the introduction of a catheter into the bladder, the latter was found empty —he continued in this state with slight uneasiness in his back for six days. On the seventh his thoughts became confused, and his speech indistinct; on the ninth he was comatose; and on the thirteenth he died. On dissection the bladder was found empty; the ureters were completely obstructed by calculi near the kidnies, and the latter were distended with urine. Extensive effusion was found in the ventricles of the brain.

The treatment recommended by Dr. Abercrombie for inflammatory affections of the brain, is blood-letting, general and topical, active purgatives, and cold applications to the head. He is doubtful of the advantages of early blistering, and at any rate prefers it upon the back of the head and neck; when the disease is advanced he considers this remedy very appropriate. He doubts the value of the mercurial practice which is so highly recommended by weighty authority. Active purging with Croton oil he considers a paramount remedy, though bleeding and cold applications are not to be neglected. The most effectual mode of applying the latter he considers to be a stream of cold water directed for a suitable time against the crown of the head; under its operation he has seen a very strong man, reduced in a very few minutes, from the highest state of maniacal excitement and strength, into one approaching asphyxia.

The following case of extensive loss of cerebral substance from tubercular disease, will be found worthy of perusal. A young lady of eighteen years was attacked with paralysis of the left side of the face; the affection disappeared in a few days, but afterwards returned and subsided again. Frequent attacks of intermittent vertigo lasting for a day or two followed and prevailed during a year; in the intervals her health was perfect. At the expiration of this time, she, while at dinner, fell from her chair, completely insensible, but without convulsion, and remained so two hours. These paroxysms of giddiness were repeated, with head-ache, first in intervals of a few months, but they became approximated towards the end of two years: so that for a fortnight she would have them every day, and then there would be

a suspension for another fortnight. In this progress amaurosis showed itself. The lady in the intervals of paroxysms was so well, that she underwent the solemnity of marriage two months before her death. The evening before the latter, her general health and spirits were such that she spent it cheerfully with a party in the house of a friend, and returned home about eleven o'clock. She died during that night unknown to any one.

Dissection.—"The brain externally appeared healthy, but when a thin section was cut from the upper part of the left hemisphere, a cavity was exposed through which a probe passed in every direction without any resistance, through nearly the whole extent of the hemisphere. This, upon farther examination, was found to arise from the whole hemisphere being in such a remarkable state of decomposition or softening, that it formed one great cyst full of soft pultaceous matter, inclosed in a very thin covering, formed by the healthy cerebral matter on the surface. The healthy portion forming this covering, in many places did not exceed a quarter of an inch in thickness; and at the thickest parts, which were on the upper surface of the brain, did not exceed one-half or three-fourths of an inch. The contained matter was a thin, soft pulp, mixed with portions of a pellucid, albuminous substance, which coagulated when they were thrown into boiling water. This matter was chiefly in irregular masses, but there were some firmer portions of it which could be separated in the form of distinct round nodules, resembling hydatids. On examination, however, they were found not to be hydatids, but uniform masses of the albuminous matter in a more concrete state. On the external part of the hemisphere, lying over the petrous portion of the temporal bone, there was a tumour the size of a pigeon's egg, adhering firmly to the inner surface of the dura mater. Externally it was irregular, as if formed of a congeries of smaller tumours; internally, it was composed partly of a reddish, soft, flesh-coloured matter, and partly of a semi-pellucid albuminous substance in nodules of various degrees of firmness. When thrown into boiling water, the whole mass assumed a uniform, opaque, white colour, and a hard, cheesy consistence. The left ventricle was entire; it contained a small quantity of serous fluid, and was separated from the diseased mass by a very thin septum. The right hemisphere was healthy, except on the inner part of the anterior lobe, which was considerably softened. It appeared to every one who witnessed the dissection, that the left hemisphere had been considerably enlarged, and the right diminished in the same proportion, the falx being sensibly pushed towards the right side. The optic nerves seemed softer than natural; the cerebellum was healthy."

Dr. Abercrombie, on the subject of apoplexy, has quoted several interesting cases, with and without any obvious morbid lesion, which have come under the observation of himself and of different writers. The inference seems to be fairly established by him, as it has been done by others, that sometimes very considerable serous effusion, amounting to eight or even sixteen ounces, has prevailed without apoplectic symptoms, while on the contrary, in other cases, no appreci-

able quantity has been found where these symptoms were equally strong. The question here very naturally arises, whether the serous membrane of the brain, has not like that of the thorax, the same ability of executing absorption for some time after apparent death, and whether the disappointment of finding an effused fluid does not frequently come from the exercise of that faculty. It is worthy of being suggested, that so long as the serous membrane retains its integrity of organization, it may be strongly disposed to execute post mortem absorption. It is well known that the celebrated MASCAGNI* asserts his having witnessed its continuance for fifteen, thirty, and even forty-eight hours in the pleura; and from the general identity of structure, we have reason to suppose the arachnoidea capable of a similar faculty.

Dr. A. denies the natural existence of the prevalent distinction between the symptoms of sanguineous and of serous apoplexy. He considers that the flushed face and full pulse, said to be the diagnostic of the former, and the pallid countenance and weak pulse of the latter, are common to both, as dissection proves. General analogy will support this position, and we are disposed to think, that cerebral symptoms, in the present state of our knowledge of them, rather manifest the organ affected than the mode of disease. By way of illustration, suppose, in the case of the lungs, a patient with a respiration highly embarrassed; if our investigation of the disease cannot go beyond this single symptom, it is evident that advanced pulmonary consumption, water in the thorax, a tumour compressing the lung, collapse in the latter, and many other conditions, will present an identical appearance. But the actual difference between the brain and the lungs, is that with the stethoscope, expectoration, percussion, and so on, our means of diagnostic for the latter are immeasurably more varied and perfect; and we can trace not only general symptoms, but analyse them into their shades and varieties, dependent upon specific modes of lesion; whereas many of the latter are in the utmost obscurity in affections of the brain, and must remain so till our methods of inquiry are much more advanced and improved.

We cannot, without extending this article beyond due bounds, go much further in our sketch of Dr. A.'s work. We think it a valuable acquisition to the practitioner and pathologist, and recommend strongly its perusal.

W. E. H.

* See Horner's General and Special Anatomy, Vol. II. p. 13.

BIBLIOGRAPHICAL NOTICES.

1. *De Carbunculo Polonico, &c. Auctore* Adamus Theophilus Helbich, *Magister Medicinæ et Chirurgiæ Varsaviensis.* Berolini, 8vo. pp. 47, 1827.

Perhaps few pleasures can be enjoyed, which are superior to those experienced by one who is professionally doomed to read and examine a great number of books, when he unexpectedly opens a work of unequivocal merit, after much fatiguing reading, and finds himself as by enchantment relieved from the tiresome droning of dulness, or the more offensive vivacity of conceited ignorance. The dogged perseverance with which he resumes his wonted task, and the rueful visage with which he refers to the number of closely printed pages he must wade through, imperceptibly vanish under the influence of a lucid arrangement and a rich, varied, energetic style; his lounging, listless attitude and lack-lustre eye, is speedily exchanged for a position indicative of enlivened feeling and excited attention; his whole mind becomes gradually so concentred upon his author that he arrives at the conclusion long before his interest is exhausted, and regrets that such pleasures must be so brief as well as so "few and far between." For two such happy hours is the writer of this notice indebted to the author of the above-named treatise, which, not long since, afforded him delight and refreshment, after a long day's toiling through the arid pages of sundry "sad and learned" authors. As a slight mark of gratitude, we now attempt to make our readers acquainted with the subject, upon which he so beautifully and excellently writes.

It is right to premise that Dr. Helbich was a practitioner of medicine and surgery in his native country, Poland, for several years previous to his seeking the highest honours of the profession from the university of Berlin. His dissertation therefore is not the first effort of an inexperienced youth, but the vigorous exertion of a man well taught to observe, and gifted with no ordinary powers of expression. This produces in the mind of the reader a feeling of reliance on the truth of his details, and prepares him to derive more ample gratification from the author's style.

The Polish carbuncle, which was thus denominated by Schmaltz, on account of the frequency of its occurrence in Poland, is the same disease which has been indicated by Chaussier, and other French writers by the name of *pustule maligne ou gangreneuse, bouton malin, puce maligne, &c.* and by the Germans as *brandblatter, schwartzeblatter, &c.* There can be little doubt but that this terrible disease has occasionally existed from the remotest antiquity, and in various countries under similar circumstances, though our author believes it to have been confounded with the gangrenous anthrax of medical writers. Ramazzini relates that it raged in Italy in 1609; Schroek in 1712, and Buchner in 1726, speak of it as existing in Germany and Poland; Chaignebrun describes it at Paris in 1757, and Hartmann observed it the following year in Finland; Berlin describes this disease as having destroyed two hundred negroes at Guadaloupe in 1774. Since that period various writers have treated of this disease,

but few of them have enjoyed opportunities of observation equal to Dr. Helbich, whose account is given with that vigorous raciness, so peculiarly distinctive of originality.

As the Polish carbuncle, or gangrenous pustule is communicated to the human race by simple contact from diseased domestic animals, Dr. Helbich properly commences with a sketch of the predisposing causes and form of the disease which affects these creatures. He states that when the spring comes on rapidly and pleasantly, the sudden melting of the ice and snow swells the water-courses, which overflow the whole soil of low regions. As the summer approaches the waters subside, leaving numerous pools, that soon exhale fetid vapours, and afford an unwholesome drink to the cattle, which are all day exposed to an ardent sun. The inundation spreads a filthy slime over vegetation, which is subsequently filled with putrescent insects. Cattle using such food, soon begin to grow unhealthy, prostration of strength ensues, and a disposition to putrid and destructive fevers supervenes.

Three stages may be observed in this disease among domestic animals. The inceptive, the period of increase, and that of termination. In the first the animal loses appetite, becomes languid, weak, somewhat thinner, the eyes lose their lustre, and sometimes have a subinflammatory redness. Cows cease to yield milk. After various intervals chills ensue, which are even more intense when the attack comes on in summer. The sadness and feebleness of the animal increasing, fever begins to rise, the bowels are constipated, and the animal is wrung by a painful tenesmus. Ruminant animals cease to ruminate. The left side becomes tumid, and painful to the touch. Sometimes the attack presents differences according as the appetite for food remains or is exceedingly increased, or scarcely any fever comes on. Occasionally the disease comes on with few obvious symptoms.

The fever persisting in severity, is followed by the greatest prostration of strength, and the increase of the disease is indicated by the tottering of the hinder limbs. Soon after the animal falls down, having the neck very much stretched out, or with the mouth drawn to the left side. The teeth are gnashed. The whole body convulsed, and the internal sufferings extort deep groans. The bowels are totally obstructed. Blood burned to blackness, flows most copiously during the tenesmus, or in consequence of the internal convulsions from the prolapsed rectum. Sometimes I have observed an animal to fall down and expire suddenly, without exhibiting any of the more violent symptoms.

The termination of the disease is twofold; sometimes the worst symptoms are protracted for some days, and the fever diminishes; fetid evacuations, at first copious, become at length natural; rumination returns, and, after a long convalescence, the animal recovers its health. But, more frequently, the disease attains its highest degree. The skin is studded with knots or gangrenous carbuncles; chronic spasms end in universal tetanus; a viscid saliva flows from the gaping mouth, the respiration is only continued by painful convulsive efforts, and after long agonies the poor beast expires.

On dissection, the lungs are found loaded with black blood, spoiled, and sometimes so soft that they break with the least touch. The liver is sometimes natural in appearance, at other times beset with squalid ulcers; the gall-bladder is copiously filled with black bile; the intestinal tube is inflamed and filled at dif-

ferent parts with a colluvies of black and fetid blood. Most frequently, however, the characteristic sign of the disease is found in the spleen, as this viscus is of thrice the natural size, rotten, and as if composed of nothing but clotted blood, showing no evidences of its proper structure, and bursting immediately when dropped on the ground.

Although this fever attacks all domestic animals, it is not contagious, as from whatever cause it may arise it affects one herd without extending to another. It is often observed that healthy calves suck diseased cows without taking the disease; and at times of a herd confined to the same pasture, part will perish of the malady without the other part being at all affected.

During the ten years which Dr. Helbich practised in Poland, he treated two hundred patients labouring under the carbuncle, and never saw a single instance in which there was any reason to believe in the spontaneous origin of the disease in the human subject, but that, 1st. Whenever the putrid fever raged among the cattle, men were affected with the Polish carbuncle. 2d. The disease was most especially frequent wherever the epizootic raged most violently. 3d. Those persons only took the contagion, who were by their occupations obliged to be about cattle, as farmers, herdsmen, butchers, tanners, &c. 4th. The Polish carbuncle only seized upon the naked parts of the body fitted to receive the poison, as the face, arms, and feet; rarely were other parts affected. 5th. Another argument in favour of the communication of the disease from without, is that it first appeared externally, and afterwards the internal symptoms came on.

The disease was communicated by simple contact of the blood of the diseased living animal, or any of the excretions, or by merely touching the skin of the nostrils, as has been proved by many authorities. I shall hereafter relate such an instance which fell under my own observation.

The disease was also communicated by the contact of any part of an animal dead of the putrid fever. As all the solids and fluids of the animal contain the poison, it is not surprising that this mode of communication should be the most frequent. The country people, ignorant of the nature of the disease, killed the sickly cattle, either for the sake of their flesh, or for the purpose of diminishing their loss by the sale of their skins. Under any of these circumstances, naked parts of the human body were brought into immediate contact with the carcass, which poisoned with virulence, whether the integuments were sound or excoriated. Whether one part of the carcass were more poisonous than the other is uncertain, and not easy to be ascertained by experiment. The viscera, as if containing the seeds of the disease, appeared to be more noxious than other parts. A warm carcass infected more readily than a cold one. All parts of the surface of the human body takes the infection with equal readiness; wherever the skin is touched by the poisonous fluids the deleterious principle is absorbed, and the gangrenous inflammation supervenes. The following instance is the one above referred to:—

In the province of Kramsk, about the commencement of June, 1826, some cattle died very suddenly, when no person was known to have the Polish carbuncle, nor had the people observed any remarkable cause for the disease among the cattle. Three young rustics were engaged in stripping the hide from a dead ox, when a very robust and healthy country wench, about thirty

years of age, passing by, fell to deriding the young men for skinning the dead animal. Seeing that she had offended them very much, she took to flight, and they chased her, caught and threw her on the ground, and with their bloody hands, as a good joke, smeared her face about the lips, her bosom, and neck.* In three days afterwards, all the parts thus touched were affected with a violent itching, and broke out into carbuncles. From that time, many of the inhabitants of the province were affected by the disease, and an individual perished from neglect of all treatment. When the prefect heard of the dreadful state of the disease he requested me to go thither, and I found fourteen persons suffering from the carbuncle, and one dead, as just mentioned. The unfortunate woman above mentioned was in the agonies of death when I arrived, and died a few hours afterwards, on the eighth day from the application of the matter, and on the fifth from the eruption.

It is very singular that those who are engaged in skinning or cutting up the animals, which are uniformly killed by the Polish peasantry, as soon as they perceive them to be affected with the fever, are more liable to be attacked by the carbuncle than those who eat of the flesh. Dr. Helbich has seen as many as two hundred boors eat of such flesh, boiled and roasted, without the slightest injury, while the skinners invariably fell under the disease. A couple of rascally butchers, at the beginning of one of these epizootics, brought by stealth a diseased bullock into the town of Konin, which they slaughtered at night and exposed the next morning in the market for sale. Many of the inhabitants, and Dr. Helbich himself, purchased and ate of this beef, without the least injury, and the cheat might never have been discovered had not both the rogues in a few days afterwards been rewarded for their exploit by an attack of the dreaded carbuncle. Nevertheless it is by no means to be understood that disease may not be communicated by such food, which should be most carefully avoided.

Dr. Helbich does not believe that the disease is communicable from one human body to another, without actual contact of the diseased part.

The disease begins in the following manner: a few days after the communication of the infection, a slight colourless swelling, like a flea bite, is perceived, which is unaccompanied by increased heat. In a short time, and generally at the same moment, a pustule appears in the centre of the little prominence, never exceeding the size of a millet seed, and when examined by the microscope is seen to be filled with a viscid fluid. This pustule is productive of dreadful itching, and an irresistible propensity to scratch. When the epidermis is removed the pustule gradually increases, and is filled with an ichorous fluid, which at length becomes black. When the pustule is accidentally broken or opened with an instrument, a few drops of bloody humour escape, and the bottom of the little ulcer appears of a livid black, somewhat higher towards the edges, depressed in the centre, concave and scooped out like an umbilicus and secreting an ichor from all its surface. This gangrenous affection of the skin having advanced to the cellular texture, is at this time about the size of half a hazlenut. The disease soon after becomes more extensive, inflammation ensues in the neighbouring parts, gangrenous phlyctenæ form in the vicinity of the tumours, violent burning pains are felt, the skin becomes puffy and elastic; all the

* "Imo unus temeraria manu pudenda contrectat."

evidences of vast irritation show themselves; fever, nausea, vomiting, and all the signs of the participation of the stomach and bowels ensue, and after a struggle varying in duration, the unfortunate patient expires.

We regret that it is not in our power to follow our author throughout his account, as we cannot otherwise do him the justice we wish. Such an extension would be incompatible with the design of these notices, and we must hasten to a conclusion.

The disease is always to be arrested in the first stage, as it is entirely local. Excision with the knife or destruction by caustic potash are uniformly successful when properly employed. Dr. Helbich, for reasons which will present themselves to every reflecting mind, gives a general preference to the caustic, and he has been very successful in treating the disease. The other treatment consists principally of the administration of such materials as are suited to keep up the strength of the patient, and diminish excessive irritation. The inflammatory stage is so short as scarcely to allow of antiphlogistic measures. All local emollient applications are positively injurious and increase the gangrenous disposition. The dressings must be stimulating, and the country people frequently sprinkle the ulcers with salt, powder of cantharides, and other acrid and stimulating substances with advantage.

With this cursory view of the subject of Dr. Helbich's treatise, we must terminate our notice. We have already mentioned that he writes like an experienced physician, and a highly refined scholar: he never makes use of any of the barbarisms so commonly resorted to by those who would conceal their ignorance of the Latin language, nor does he employ one of the horrible inversions of phrase, which are frequently passed off by sciolists as evidence of their profound acquaintance with Latin construction. We unfortunately possess some works, that nothing but "dire necessity" could compel any one to read, which from such causes are almost as bad as if written in hieroglyphics: fortunately a black oblivion awaits all such, while the works of men of true genius and refined education, shall be handed down to posterity in perennial youth, and be read with pleasure and advantage through the remotest ages.

To American physicians it may prove a very useful subject of research, to ascertain if possible, whether in various parts of our country diseases may not be communicated in a similar manner; and our city and town physicians may probably derive advantage from inquiring whether our markets may not *occasionally* be supplied with meat about as healthy as that sold in the markets of Konin. At least such investigations might bring to light a number of important facts, and might lead to a discovery of causes for various affections, which no one, *a priori*, would imagine. In the western country we know that the human kind is liable to a form of disease, from eating the flesh and drinking the milk of sick animals, and there is reason to believe that even the gangrenous carbuncle has occasionally appeared in some parts of the Union. At the present day, when subjects of inquiry appear to be rather more scarce than inquirers, we hope that these well-meant hints will not be without their use. J. D. G.

2. ***A Practical Essay on Stricture of the Rectum; Illustrated by Cases, showing the Connexion of that Disease, with Affections of the Urinary Organs and the Uterus, with Piles and various Constitutional Complaints.*** By FREDERICK SALMON, Surgeon to the General Dispensary, Aldersgate street, and formerly House-surgeon to St. Bartholomew's Hospital. London, 1828, pp. 188, 8vo.

The object of this work is to prove that stricture of the rectum is a very common disease, inducing many other important affections; and that surgery furnishes us with means adequate to its removal or alleviation, provided such means are exercised with judgment and science.

Mr. Salmon commences with a brief account of the anatomy and physiology of the rectum. He considers it as composed of three portions, or curvatures: the first commences at the termination of the sigmoid flexure of the colon, and includes nearly half the length of the intestine, its concavity being forwards; the second portion is about three inches and a half in length, and extends to the prostate gland in the male, and under the vagina in the female, and has its concavity upwards; the third comprises the remaining portion of the intestine, and has its concavity slightly inclined backwards. The seat of stricture, according to our author, is most commonly about five or six inches from the anus, at the angle formed at the junction of the upper and middle curvatures, and consequently beyond the reach of the finger; its next most frequent seat is at the junction of the sigmoid flexure with the rectum.

Mr. S. agrees with Mr. White, that there is frequently a constitutional predisposition to stricture, resulting, he believes, from the narrowness of the colon at the sigmoid flexure. Another, and a common case of stricture, he is of opinion, will be found in the administration of large doses of drastic purgatives; indigestion also is a cause, but he denies that it is ever consequent on syphilis. The other causes of stricture are, an enlarged and tender condition of the uterus, carcinoma, enlargement of the prostate gland, and piles—tumours or excrescences growing in the bowels, fistula in ano, &c.

Mr. S. says, that in the commencement, strictures are for the most part simply spasmodic, but that in process of time, from continued irritation, depositions take place between the coats of the bowel, and that ultimately the bowel becomes indurated and thickened; in some instances bands of a firm consistence extend from side to side, forming septa across the bowel.

We pass over the chapter on the symptoms of stricture, as they at most can only lead to a suspicion of its existence, and rouse the practitioner to ascertain its existence by examination.

The treatment of this affection is divided by Mr. S. into the constitutional and surgical. The first comprises topical applications to the neighbouring parts, as leeches to the verge of the anus, cupping the perineum, nates, or loins—attention to diet, keeping the bowels regular by mild laxatives, and especially by injections. The most important part of the treatment, however, is the surgical, or the use of the bougie. Mr. S. gives the following directions for the introduction of this instrument, the rectum being evacuated and tranquillized by the administration, an hour or two previously, of an injection of tepid poppy water with forty or fifty drops of laudanum.

"A full-sized bougie, not less than eleven inches in length, thoroughly soft-

ened and well oiled, adapted to the shape of the passage through which it is to be passed, is to be introduced with the convexity of the first curve towards the sacrum, in which way it is to be passed upwards and backwards about two inches, through the third portion of the bowel, provided it gives no pain, for the introduction will commonly produce an uneasy sensation; we continue to propel the bougie in the same direction, about three or three and a half inches higher, or through the second portion of the rectum; the point of the instrument will now bear directly upon the hollow of the sacrum, and the but-end towards the left side of the body. With a view, therefore, of avoiding the sacrum, and of accommodating the instrument to the great curve of the rectum, we change its position, by describing the segment of a circle from left to right, with the but-end, turning it upwards, at the same time continuing to propel the instrument. Having described this segment, we shall have carried the bougie full four inches farther, or to what may be considered the extent of the rectum. But it is yet to be introduced into the sigmoid flexure; we therefore triflingly depress the but of the instrument, at the same time propelling it upwards, till the whole is fairly within the sphincter—this accomplished, we may be satisfied.

"Upon encountering obstruction, trifling pressure is to be maintained for a minute or two, and if under this careful pressure the pain increase, and the instrument remain stationary, it is to be withdrawn, the next size introduced, and so on from above downwards, till we ascertain the size which passes with trifling pain or difficulty fairly into the sigmoid flexure. Should we doubt whether the bougie has entered this part, the doubt will be removed by relinquishing the pressure from the end of the instrument, when, if the bougie has not entered the sigmoid flexure, it will slowly recoil; we are occasionally apprised of its having entered this part by the passage of air from the bowel."

Mr. S. allows the bougie to remain in the bowel ten or fifteen minutes, provided it produces no considerable irritation; care being taken to affix a tape through the loop to prevent the instrument being drawn up into the rectum. He repeats the operation at intervals of from three to five days, increasing the size of the bougie, and the period it is suffered to remain in the intestine, according as the circumstances of the case permit. Mr. S. differs from others in the frequency of introducing the bougie; he formerly passed it as recommended by authors, but believing when used daily, and suffered to remain in the bowel eight or ten hours at a time, that the irritation which it caused did not subside during the interval, and that the disease was often aggravated, he determined to introduce it less frequently, and he found that his patients not only experienced less irritation, but that he was enabled to increase the size of the bougie more rapidly.

The instrument used by Mr. S. is composed of fine linen cloth, very heavily coated with wax and a certain portion of diachylon plaster mixed with a small quantity of lamp-black. From immersion in very hot water some minutes previously to being used, it is rendered soft and pliable to any extent, and retains one regular and smooth surface. When introduced into the bowel, it hardens to a degree sufficient to afford considerable resistance to the action of the stricture. The largest size Mr. S. uses is three inches and a half in circumference, the smallest one inch; the medium between the two he subdivides into ten

sizes; the length of the instrument is eleven inches. When there is extreme local irritation, benefit will result from smearing the instrument with an unction composed of one ounce of elder flower ointment with a scruple of very finely powdered opium. Mr. S. places no confidence in medicated bougies.

The introduction of the bougie is sometimes followed by severe cramps, sometimes by shivering, occasionally an inclination to sickness; very commonly when it is passed into the sigmoid flexure, and during the time it remains in the part, pains extending over the whole surface of the abdomen, more particularly in the epigastric region. These latter are sometimes so considerable as to alarm patients; they generally however subside; if they do not, a cordial aperient draught will remove them. Great annoyance is often experienced in the introduction of the instrument, from the powerful action and irritation of the sphincter muscle; this Mr. S. says may be considerably lessened by passing the bougie completely through both the external and internal sphincters, first affixing a tape through its loop, a precaution which should never be neglected, for the bowel will sometimes draw up the instrument completely out of the reach of the finger.

The division of the stricture he considers a dangerous, and in many cases, an equally useless operation; never admissible except where the obstruction is within reach of the finger, and even under the most favourable circumstances sometimes productive of a fatal result. He has performed the operation but twice, and in one the patient fell a sacrifice to peritoneal inflammation.

Mr. S. devotes a short chapter to carcinomatous diseases of the rectum, and concludes his work with remarks on the various affections which he considers as necessary consequences if not the immediate symptoms of stricture. These diseases are certain affections of the urinary organs, of the uterus and vagina, distention and permanent enlargement of the colon, piles, and determination of blood to the head; and a number of cases, some of which are extremely interesting, are given, illustrating these affections.

The work is founded principally on the results of personal experience, and is a useful addition to our medical literature.

---

3. *Uebersicht der Wichtigsten Heilquellen im Königreich Preussen, mit Besonderer Beziehung auf ihre Benutzung im Sommer* 1826. Von Dr. E. Osann, Professor der Medicin zu Berlin. Berlin, 1827, 8vo. pp. 70.

A Survey of the principal Medicinal Springs of Prussia, with particular reference to their Use, made in the summer of 1826. By Dr. E. Osann, Professor of Medicine at Berlin.

In this small but valuable volume, Dr. Osann has rendered an excellent service to the professional men of his country, and set an example worthy of general imitation. During the summer of 1826, he visited the most remarkable medicinal springs of Prussia, and made particular observations on their qualities and uses, thus filling up a vacuum which has always hitherto existed in the medical history of his native land, and augmenting the resources of practitioners, by placing within their view a satisfactory account of her abundant mineral springs. In saying this, we do not imply that nothing had been published in relation to Prussian mineral waters, previously, but that no special treatise

embracing a view of the whole had been presented; of necessity the practitioner could derive little benefit from the scattered and individual tracts, published at various times, and in different places, in relation to a few of the most remarkable.

The same defect has long existed here, and has been deeply felt by American physicians. Bounteously as the author of nature has opened these sources of health throughout our land, and numerous as the tracts and analyses are, which have been published concerning some of our most celebrated springs, the practitioner still has to wish in vain for an ample book of reference, in order to judge of their comparative merits, or to decide upon their especial adaptness to cases under his charge. Great as this deficiency is, we had rather it should continue to be felt, than that a mere compiler should undertake to supply the remedy. It is a subject worthy of better treatment, and we believe that a competent observer who should visit, analyse, and carefully inquire into the remedial efficacy of all our most remarkable mineral waters, and present the results of his investigations in a *small, well arranged, and lucidly written* treatise, like that of Dr. Osann, would not only be well rewarded for his trouble, but acquire a lasting title to the regard of the medical profession.

Dr. Osann gives an account of more than sixty situations in Silesia, Glatz, Niederherrhein, Westphalia, Brandenburg, Sachsen, Pomerania, and East Prussia, with the number of patients treated at each place, and leads us to infer that great benefit is annually conferred on the community by the use of these waters, of all these springs, those which are richest in sulphur, and have the additional advantage of being used, at the same time, as natural warm baths, appear to have relieved the greatest number of patients; especially such as laboured under rheumatism, cutaneous affections, irregular menstruation, glandular swellings, &c.

We cannot attempt, in the present notice, to present the ample analysis which would be necessary to do justice to Dr. Osann's survey; but as it forms a valuable contribution to the general history of mineral waters, it will always be referred to as satisfactory authority, and it is doubtless received by his countrymen, who are especially interested, as a work entitled to much attention.

We indulge the hope that the mineral waters of North America will before long receive that notice, from some competent observer, to which their value and importance so justly entitle them; and if the work be performed in the manner we have heretofore mentioned, the author of such a treatise may feel satisfied of receiving a very ample reward. J. D. G.

---

4. *An Introduction to the Comparative Anatomy of Animals, compiled with constant reference to Physiology, and elucidated by twenty copperplates.* By C. G. Carus, Med. et Phil. Doct. Professor of Midwifery to the Medico-Chirurgical Academy at Dresden, &c. &c. Translated from the German, by R. T. Gore, Member of the Royal College of Surgeons in London. London, 1827. 2 vols. 8vo. pp. 771, and 1 vol. 4to. of plates.

Comparative anatomy has been too generally restricted to a mere description of the structure of animals, without reference to the mutual relations of similar or dissimilar organizations, or the relation existing between these differences,

and the corresponding differences in the phenomena of life. Taking man as the ideal type of the most perfect structure, it has been usual to commence with the most complex animals, and to trace organization in a descending series, thus adopting the most difficult mode for the student, presenting him with but an obscure view of the subject, and impressing his mind often with erroneous ideas of the importance or character of particular parts. Restricted within such narrow limits, and studied in the manner we have indicated, comparative anatomy can throw little or no light on its more important sister science, physiology, or indeed be considered of much importance in the general circle of science. Comparative anatomy, however, comprises a much more extensive field, and when properly cultivated will yield rich contributions, not only to physiology, but also to pathology and medicine. A comparison of the various forms of living beings, the observation of what is identical, consequently essential in all the manifestations of life, and the consideration of those phenomena, which under certain circumstances undergo modifications, and may therefore be supposed less indispensable, must evidently be the surest and easiest method of arriving at a knowledge of life and at an acquaintance with its laws.

Entertaining these views of the science, Professor Carus commences with a description of the organs as they first appear in their simplest form in the lower classes, and traces them in their gradual and successive development, to their most complex forms in the higher orders of animals, keeping constantly in view the functions of animals and the modifications which entire apparatus of organs undergo in the different classes. He has thus furnished us with a most interesting and instructive work, presenting a comprehensive view of the actual state of the science, and one which forms a highly useful introduction to physiology, and should be carefully studied by all those who wish to arrive at a complete knowledge of that science.

---

5. *American Medical Biography; or Memoirs of Eminent Physicians who have flourished in America. To which is prefixed a Succinct History of Medical Science in the United States from the first settlement of the Country.* By James Thatcher, M. D., Fellow of the American Academy of Arts and Sciences; Honorary Member of the New York Historical Society, and of the New York Horticultural Society, &c.; Author of the American New Dispensatory, of the Modern Practice of Physic, and of the Military Journal. Two vols. in one, 8vo. pp. 716. Boston. Richardson & Lord, and Cottons and Barnard, 1828.

Dr. Thatcher has laid the profession at large under great obligations for the various works which he has contributed to their libraries. The present one is the completion of a task promised to us for some time; and although, from our previous acquaintance with the merits of the author, we were led to anticipate great pleasure and instruction from his labours, we have been nowise disappointed. On the contrary, the American Medical Biography presents a higher degree of interest than could at first be expected, considering that the lives of physicians, to whatever eminence they may have attained, are seldom distinguished by remarkable adventures or variety of incident. But from the

first settlement of our country, the medical profession has exercised a most active influence in the promotion of science and the diffusion of knowledge, for which its votaries are especially fitted by their free intercourse with society, and that independence of feeling and opinion, which results from a close intimacy with nature, and the influence of moral and physical agents. Hence we find physicians occupying very prominent stations in the early annals of our country, and among the most active patriots both in the cabinet and field. That our author was himself early engaged in the great cause of freedom, whilst it renders his productions more interesting to others, must contribute in no small degree to the solace of his advanced age.

In composing the volumes under consideration, there appears to have been no lack of materials; they indeed were so abundant as to call for considerable suppression and retrenchment, in order that the book should not become too unwieldly or expensive. The assemblage of medical and political characters brought into one view by Dr. Thatcher, would, as he justly observes, reflect honour upon any country, and must be useful both to the present and rising generations, by affording the most correct models of all the virtues and excellencies which adorn the man or exalt the physician.

That portion of the work which is devoted to the history of medicine in America, has been arranged so as to afford a sketch of the medical character in each state, and present a view of its most distinguished physicians. It will be read with interest, and in common with the rest of the work is written with great impartiality.

The work is embellished and enriched with portraits of some of the most distinguished individuals. G. E.

---

6. *Observations on the Causes and Early Symptoms of defects in the form of the Spine, Chest, and Shoulders, and on the means of correcting them: with Remarks on the different Methods pursued in this Country and on the Continent in the Treatment of Distortions, being an enlarged edition of the Papers lately published in the London Medical Journal.* By John Shaw, Surgeon to the Middlesex Hospital, and formerly Lecturer on Anatomy. London, 1827, pp. 130, 8vo. with nine plates and numerous wood-cuts.

The alarming increase of spinal disease is strongly indicated. In 1823, M. Milli established the first institution in Paris for the cure of distorted spine, since which time a very great many others have been erected. In some as much as six thousand francs are paid per annum for the boarding and medical treatment; a sum called for, it is said, by the complex, *ponderous*, and expensive machinery employed in the treatment of this obstinate malady. But a few years have elapsed since even the nephew of Sir Astley Cooper was confided for the cure of such a case to a country quack, to whom resorted almost all the cases in England, and they were hardly too numerous for his continued solitary exertion. Now the alarm has become general, and the remarkable frequency of the disease has called to its aid the first ability of the medical profession. Book after book in rapid succession, announces the various remedies suggested by educated ingenuity: and we are, amidst the too great multiplica-

tion of suggestions, nearly as much at a loss, as when we heard only of the issue and the inclined plane. A careful survey of all the most popular remedies leads to a classification of them under the following heads:—

1st. Tonics administered internally.

2dly. External tonics, such as the cold bath, exercise, frictions, &c. without supports for the spine.

3dly. Cathartics steadily and durably administered.

4thly. Rest either on a horizontal or inclined plane without extension.

5thly. Rest on similar planes, with extension, and pressure to mould the shape.

6thly. Exercise with continued props.

7thly. Exercise with occasional but daily repeated extension. The weight being thrown in some cases on the hips, in others on the ground.

The present volume of Mr. Shaw is occupied with able strictures on the comparative advantages and disadvantages of each of these suggestions. Bringing to the consideration of the subject great anatomical and surgical skill, and a considerable experience, he may be esteemed a highly competent judge, the more especially as he has taken the trouble to visit the most celebrated spine establishments of the continent. In 1823, he published a volume "On the Nature and Treatment of the Distortions," &c.; in 1825, one called "Further Observations," &c.; and in the present volume has collected and enlarged a number of papers printed in medical periodicals. We consider the last as his best work, both because it is less diffuse and more explicit than its predecessors, and is in fact a good digest of the contents of the former volumes, which were defective in method and perspicuity.

The result of his investigation is an unqualified condemnation of all treatment by confinement and rest, and a commendation of that which invigorates, while it affords occasional extension. After exertion, rest should, he thinks, be taken on an inclined plane; and even on such a plane many muscles may be made to exert themselves beneficially for the patient.

"As so many objects may be attained by this contrivance, and especially as it admits of the combination of exercises, rest, and support, I believe that it alone would be sufficient to the cure of a distorted spine, and that the patient would continue in good health, even were she not to quit it for months. But I have never put a patient to such a trial. I permit her to sit up four hours at least out of fourteen. Of these four hours two should be spent in the open air. When the patient sets up or walks, the spine should be prevented from sinking. This is most conveniently done by the side supports fastened to a girdle round the hips. If it should be necessary to keep the cervical part extended, this can be accomplished by a small rod passing up from the girdle, or sometimes by a stiff-necked collar, similar to that worn by soldiers."—pp. 105, 106.

It is singular that Mr. Shaw, after laying down the soundest principles of practice, should have returned after condemning the inclined plane, to such a continued use of it. No wonder then that he should in this volume speak so much less confidently of his success, for he has been carried away from his principles by authority. When he recommended exercise, and only absolutely necessary props, he did well for the cause in which he was so diligently engaged; but when he suggested the confinement to that plan which he himself had de-

nounced, and that too without precautionary purging, he might have looked for that disappointment which befell him. We who have seen the good effects of entirely extrinsic supports, while the patient is taking exercise, cannot help lamenting that Mr. Shaw should recommend supports which rest on the hips, and which compress the abdomen and chest, and the muscles of the back. We did expect to find him a hearty approver of the crutches used in Paris, because they do not confine the patient; nor do they interfere in the least with the action of muscles or the duty of ligaments; and he himself admitted the cheerful and agile movements of patients so treated. We have unquestionable evidence of their usefulness, and believe that the spine cart, spine swing, crutches, and cathartics, and the cold bath, are adequate to the entire removal of any very recent case of lateral or serpentine curvature, not caused by rickets or pulmonary irritation. J. K. M.

---

7. *Malaria; an Essay on the Production and Propagation of this Poison, and on the Nature and Localities of the Places by which it is produced, with an enumeration of the Diseases caused by it, and of the means of preventing or diminishing them, both at Home and in the Naval and Military Service.* By John Macculloch, M. D., F. R. S. &c. &c. London, 1827, pp. 480, 8vo.

That a poisonous aeriform substance, uncognisable except by its effects on the human system, is generated by wet lands and marshes, is a fact which has been familiar to physicians from the earliest ages; it is recognised and treated of at some length by Hippocrates, and has been the subject of observation and inquiry down to the present time. But a knowledge of this fact is not confined to medical men alone; it is familiar to the most unenlightened people; the inhabitants of the fens of Lincolnshire, of the maremma of Italy, or of the morasses of Ceylon, are equally aware that the great waste of life among them is mainly attributable to this destructive and widely pervading agent. This substance has received the names of marsh miasmata, malaria, &c. and appears to exert a deleterious influence co-extensive with the inhabited portions of our globe, giving rise to a great proportion of those diseases which assume a periodical type.

If any theory in the science of medicine is based on undeniable facts, and substantiated by weight of evidence, it is that of the effects of malaria; yet opponents to this doctrine have not been wanting, who have endeavoured to convince themselves and the world, that such an idea is wholly erroneous and hypothetical, and that malaria exists but in idea. That the arguments by which these writers have striven to maintain so dangerous a doctrine are ingenious, and their reasoning plausible, we are ready to admit; but experience, the surest test of truth, is wholly against them, and the superstructure they have raised, however fair in appearance, and skilfully put together, must fall to the ground, for like the tower in the parable, it is but based on sand.

No doctrine is calculated to do greater mischief than that of the innoxiousness of marsh miasmata, and fortunately for the world it is one which has gained but few adherents.

A complete refutation of this wild and erroneous speculation, will be found in Dr. Macculloch's work, which presents, in a small compass, all that is valuable and interesting from former writers on the subject, together with a mass of ori-

ginal observations, evincing much talent and research, and placing the subject on such a vantage ground as will, we trust, render any additional evidence unnecessary.

We shall not attempt to give an analysis of Dr. Macculloch's work, as we are convinced that it would give but an imperfect view of the subject; the learned author has presented his facts and observations in so condensed a form, and so connected with each other, that a careful perusal of the whole treatise is requisite to a full understanding of the doctrine. We, however, think it may be interesting to our readers, to present them with a short sketch of some ideas that appear to be original with Dr. Macculloch, and which, if found by closer observation and more extended experience to be correct, will tend to obviate one great source of the objections which have been raised against the existence of malaria.

It is generally acknowledged and proved, that marshes or swamps, whether fresh or salt, are generative of malaria, but it is also a common opinion that it requires a certain extent of this soil, and generally a considerable one, to produce disease; this says Dr. Macculloch, "is an error, and must be classed among the dangerous ones, as being productive of a false security. *A priori*, if a large tract of land in this particular condition produces a given quantity of malaria, it is certain that this mass must be an union of all the portions generated by its parts; and if, as is the fact, however vaguely stated, this poison is the chemical produce of vegetables, living or dead, acting on water, or acted on by it, then must every plant and fragment of a plant, contribute its share of the deleterious substance." Dr. M. also thinks that there is an analogy between malaria and the matter of contagion; and as in the latter case, the quantity of deleterious matter sufficient to produce disease is imponderable, and not to be detected by any chemical test, so analogous effects may be produced by the minutest portions of malaria. That this is the fact, is a matter of observation and experience, as many instances are recorded where a very short exposure to malaria was sufficient to excite fever, and still more to re-excite it, in those who are labouring under that morbid sensibility derived from former or habitual fevers.

"A marsh, therefore, as far as its essence consists in producing malaria, is not to be defined by space, or it does not demand extent; and I must now show that it is not to be defined by its aspect, as that is commonly understood." Dr. Macculloch goes at some length into an examination of the soils and situations less suspected of malaria, but it would lead us far beyond our limits should we attempt to follow him; it is however, one of the most important chapters in the work, and will amply repay a close and attentive perusal.

There is, however, one point we wish to notice, as it is of great practical importance; that is, the popular idea that there can be no danger, where there is a running stream or renovation of the water; all the danger apprehended is invariably from stagnant, absolutely stagnant and putrescent water; and it is generally considered that smell is the criterion of the hazard, or in other words, that the poison and the smell are identical. "Thus," says our author, "a water covered with duckweed, or crowded with potomogetons, nymphæas, and other floating and absolutely aquatic plants, is the exclusive object of terror; while no fear or suspicion is ever entertained respecting a limpid and apparently

pure water, whether at rest in a green lawn, or gliding quietly along its grassy and poachy margin." Dr. Macculloch is upheld in his opinion of the deleterious effects produced from such sources, by Montfalcon, who lays great stress on the evils produced by "pieces d'eau d'agement," and "lacs artificiels."

As regards canals, the subject becomes highly interesting at the present time, when every section of our state is about to be intersected by these channels of commerce; as they partake of the nature of a sluggish river, and indeed in many places of a stagnant pool, they should naturally be esteemed a probable source of malaria; the more so, as from many of our canals having but one high bank, the water flows over the low land in their vicinity, their margins possess all the essential qualities of a marsh, added to which a diminution of their waters exposes mud impregnated with vegetable matter to the action of the sun.

When we recur to facts in absolute evidence respecting the noxious consequences of canals, they are found to be exceedingly numerous and well authenticated. As regards this country, we have not as yet certain intelligence of the existence of the appropriate endemics in the vicinity of canals, though we are strongly of opinion that this proceeds from a want of sufficient observation. It is, however, a notorious fact, that there has been a great waste of human life, and very general sickness among the labourers engaged in the construction of them in this state; what will be their effect, when finished, time will show.

The chapter on the propagation of malaria is highly important, and displays much acuteness of observation; it is however too long to attempt to notice in this place: we shall therefore conclude what we have to say, with a few words on the geography of malaria, particularly as it respects this country.

Dr. Macculloch, after giving a very extensive and interesting sketch of the malaria districts in Europe, observes, "I might detail the geography of the malaria of America at considerably more length, since the information is here more perfect," (than that of Asia.) "Generally, therefore, I must observe, this plague occupies the Canadas in summer every where along the shores of the great lakes and rivers, the character being commonly that of inveterate intermittents: while, whether Lake Erie is worse than the others or not, it has the worst reputation, as have elsewhere the banks of the Mohawk and the Genessee. With respect to the United States, formed of alluvial land as they chiefly are, Volney remarks, that out of a space of three hundred leagues, he did not find twenty houses free from the fevers of malaria; the most distinguished places, nevertheless, being the course of the Ohio, rendering even the interior state of Kentucky insalubrious; the towns of Norfolk, Charleston, New York, Philadelphia, New Orleans, &c. &c. and almost the entire states, in fact, of Virginia, the Carolinas, Georgia, the Floridas, and Louisiana."

Such is Dr. Macculloch's view of the extent of malaria in this country, and unfortunately it presents but too true a picture of the wide and extensive influence of this poison. This state has, for the last few years, been terribly afflicted with intermittents, beginning along the water courses, and gradually pervading the whole country, till at last no situation appeared to be exempt from their attacks; even those situations formerly considered as perfectly healthy, and as possessing no sources of the poison. It appears that under the peculiar state of the atmosphere, that every pond and marshy spot, from which no part of our state

is free, poured out miasmata, and affected most of the inhabitants in their vicinity; the large towns, however, were exempted, although in their immediate neighbourhood, from the number of brick-ponds and other sources of miasm, disease was extremely rife.

The yellow fever, which at different periods has been so great a scourge to our maritime cities, is owing to miasm produced under a high degree of temperature and under peculiar circumstances. That this is denied by many, we are well aware, but the fact is now well established; and examples are furnished in every country in which high ranges of the thermometer occur; in fact, the observations and inquiries of those physicians who have had the best means of judging, will fully warrant the conclusion that what is termed yellow fever is the production of marsh miasmata, or, as it was called by Dr. Miller, of New York, koino-miasma, and that our great reliance for protection against its appearance, must be a sedulous and strict attention to the removal or destruction of all sources likely to produce miasma: more will be accomplished by such a plan of procedure, than by the most rigidly enforced quarantine laws that look to contagion as the only mode by which the fever can originate.

The last subject on which our author treats, is that of the diseases produced by malaria. In this we are not, in the present state of our knowledge, prepared to follow to the full extent; his observation, however, that a residence of successive generations in a malaria district produces a degeneracy of the races, is most amply proved. No one that has ever traversed the malaria district in Italy but must have been struck with the appearance of the inhabitants; this is more particularly observable in the Pontine marshes, the chosen throne of malaria; here the residents have the appearance of walking spectres; a great slenderness and emaciation of the limbs, with an enlargement of the abdomen, is a usual characteristic of all who have resided for any length of time in this spot: they are also often œdematous all over, and thus drag on a miserable existence through the short term of their wretched lives.

Dr. Macculloch seems to think that the cretinage of the Vallais, and elsewhere, may be owing to this cause; this is a point on which, however, he does not speak decidedly, and properly observes that it is an object deserving further inquiry.

The list of specific and definite diseases which he considers to be the produce of malaria, is fearfully extensive. Beginning with fevers of all grades and diversities of character, he next attributes dysentery, cholera, and diarrhœa to the same cause, with a multitude of consequent organic derangements. But what he seems to consider as original with him, is the addition to the list of the neuralgic affections, particularly tic douloureux, but as we before observed, the present state of knowledge of the causes of diseases is not sufficiently precise and extended for us to decide whether his views be correct; it is a subject fraught with interest and worthy the attention of every medical man, and will prevent a great mass of evil and suffering, and essentially diminish the sum of human misery.

We most strongly recommend Dr. Macculloch's treatise to the attention of our medical brethren, as presenting a most valuable mass of information on a most important subject. That it is free from errors and gratuitous assertions, can

scarcely be expected; but the chaff bears but a small proportion to the wheat. One great defect of the book is the language, which is often ambiguous, and displays an attempt at fine sentences, in which the meaning of the writer becomes so involved, as, in many instances, to be almost unintelligible.

R. E. G.

---

8. *Surgical Observations on the Treatment of Chronic Inflammation in Various Structures; particularly as Exemplified in the Diseases of the Joints.* By John Scott, Surgeon to the Ophthalmic Infirmary, and Assistant Surgeon to the London Hospital. London, 1828, pp. 291, 8vo.

Mr. Scott of Bromly, is said to have enjoyed an extensive reputation for his successful treatment of diseases of the joints. The work, the title of which stands at the head of this article, is by his son, and its object is to communicate the mode of treatment so successfully employed by his father.

Mr. S. has prefixed to the essay, a short inquiry into the nature and treatment of chronic inflammation. The two essential conditions of this disease he considers to be venous congestion, and increased arterial action. Chronic ulceration of the lower extremities he says is only the termination and effect of the chronic inflammation by which it is surrounded, and in the treatment, the direct object is not to heal the ulcer, but to cure the chronic inflammation; for if this be effected the ulcer heals spontaneously. The essential remedy for this state of things is, according to our author, mechanical support, he, however, differs from Mr. Baynton, both in his mode of applying this support, and in his explanation of its modus operandi. It acts, he believes, by affording an uniform support to the limb, so as to prevent the veins from yielding to the pressure of their contents, and bringing about a uniform state of the circulation, or in other words, relieving the venous congestion, upon which, as we have already said, he believes the inflammation and ulceration to depend. To effect this, the pressure must of course be applied in a manner very different from that in which it is recommended by Mr. Baynton, indeed, Mr. S. says that he has often found that mode highly injurious. Mr. S. employs the emplastrum plumbi spread on calico, as it does not irritate the skin. "It is most conveniently made use of," he says, "when cut into slips of fifteen inches in length by two in breadth. The foot being placed at a right angle to the leg, one of the slips should be applied from the first bone of the great toe along the inner edge of the foot, around the posterior part of the os calcis to the first bone of the little toe; the middle of another slip should then be placed under the bottom of the os calcis, and its ends extended perpendicularly up on each side of the leg; the third is to be applied along the foot, parallel to the first, and overlapping the half of it; the fourth should be placed parallel to the second, overlapping the half of it, and extending perpendicularly up the sides of the leg. In this manner they should be applied alternately along the foot, and up the leg, the one holding and as it were antagonizing the other in the motions of the foot, until the whole limb is covered from the toes to the knee. Subsequently to this, a calico bandage is applied in the usual manner, first alternately around the foot and ancle, and then up the leg as high as the knee. It is necessary to be particularly careful that the plasters and bandage

be applied in such a manner that their superior and inferior edges are accurately placed in apposition to the skin, otherwise they will exert an unequal pressure, which is highly injurious. The whole should be applied with only that degree of tightness which is perfectly agreeable to the feelings of the patient, and not with a view of compressing the parts into a smaller space. In this manner every vessel in the limb will be uniformly and effectually supported.

"In respect to the time at which it will be necessary to renew the applications, that must be regulated by the quantity of the discharge, for when applied in the manner that has been described, they will remain for weeks, or even for months, without altering their position in the least.

"By adopting this mode of treatment, an ulcer on the lower extremity is placed precisely under the same circumstances in respect to the circulation, as one that has its seat on the trunk, or on the upper extremity; and will heal with equal facility."

Mr. S. has also found mechanical support as useful in the treatment of chronic inflammation of the upper as the lower extremities.

In some instances, however, the power of the arteries is so greatly reduced by long continued disease, that mechanical support is not capable of enabling them to resume their healthy action; or they may have become so habituated to the performance of morbid action, that they have no disposition to return to a healthy state, even when their turgescence has been mechanically removed; in other instances the situation of the disease or the texture of part precludes this mode of treatment. In such cases he recommends mercury. This remedy, he says, is now universally acknowledged, has the power of subduing inflammation, and that when the whole vascular system is placed under its influence, inflammatory action subsides. Sometimes, however, although the internal exhibition of mercury is productive of temporary relief, it so greatly impairs the already debilitated powers of the constitution, as to be succeeded by an aggravation of the disease. Fortunately we may get all the benefit, Mr. S. says, without any injurious effect, as when locally applied, it has the same power, according to our author, as when internally administered, and this without producing its constitutional effect.

Mr. S. next enters upon the consideration of the diseases of the joints and their treatment. We pass over his account of white swelling, (which he describes, as it attacks the synovial membranes, the articular cartilages, and the cancellous structure of the bones, and also, as it appears in the knee and hip-joint, as it contains nothing novel,) and proceed to the treatment. This he divides into constitutional and local. The former consists in the employment of active purgatives, or alteratives and aperients, according to the active or chronic state of the disease; tonics, alkalies, diet, rest, or exercise on crutches, according to the state of the disease; warm baths, dress, residence in the country or at the sea side; and full directions are given for the management of all these means.

The next and most important portion of the work is devoted to the description of the local treatment which has been so successful in the hands of his father and himself. The first condition is the absolute rest of the joint, which must be continued some time after exercise has ceased to be painful. If the

joint is in a state of more or less active inflammation, this must be subdued by topical depletion, by cups or leeches, the latter is to be preferred when the knee-joint is the seat of the disease.

Mr. Scott's experience leads him to believe, "that the probable effect of blood-letting will be better indicated by the state of the constitution, than by the activity of the local disease. In patients much emaciated, local bleeding has rather aggravated than reduced the disease; yet, subsequently, in these very patients, when their constitutional power had been improved by proper treatment, local bleeding has been distinctly serviceable. When a sufficient quantity of blood has been removed, the best application that can be immediately employed is the common bread and water poultice."

He has never found that benefit result from the use of cold applications which others have described; and he very pointedly objects to the use of blisters, the tartar emetic plaster, setons, issues, and the moxa. "The above-mentioned irritating, and sometimes very mischievous remedies, may," he says, "all be superseded by the following treatment. In the first place, the surface of the joint, suppose the knee, is to be carefully cleansed by a sponge, soft brown soap and warm water, and then thoroughly dried; next, this surface is to be rubbed by a sponge soaked in camphorated spirit of wine, and this is continued a minute or two, until it begins to feel warm, smarts somewhat, and looks red. It is now covered with a soft cerate made with equal parts of the ceratum saponis and the unguentum hydrargyri fortius cum camphorâ. This is thickly spread on large square pieces of lint, and applied entirely around the joint, extending for at least six inches above and below the point at which the condyles of the femur are opposed to the head of the tibia; over this, to the same extent, the limb is to be uniformly supported by strips of calico, spread with the emplastrum plumbi of the London Pharmacopœia. These strips are about one inch and a half broad, and vary in length; some are fifteen inches, others a foot, others half these two lengths, and the shorter or longer are selected according to the size of the part round which they are to be applied. This is the only difficult part of the process. This adhesive bandage ought to be so applied as to preclude the motion of the joint, prevent the feeble coats of the blood-vessels from being distended by the gravitation of their contents in the erect posture, and thereby promote their contraction. Over this adhesive bandage, thus applied, comes an additional covering of emplastrum saponis, spread on thick leather, and cut into four broad pieces, one for the front, the other for the back, the two others for the sides of the joint. Lastly, the whole is secured by means of a calico bandage, which is put on very gently, and rather for the purpose of securing the plaster, and giving greater thickness and security to the whole, than for the purpose of compressing the joint. This is an important point, as otherwise an application which almost invariably affords security and ease, may occasion pain, with all its attendant mischief.

"In some cases, in which the skin is thick and indolent, sufficient irritation will scarcely be excited by the above applications, and this may be promoted by rubbing on a small quantity of tartar emetic ointment previously to the application of the cerate. This, however, is rarely necessary.

"In some cases, also, it is desirable more effectually to prevent the motion of the limb, particularly in children. This may be done by applying on each

side of the joint; externally to the plasters, a piece of pasteboard, softened by soaking in water, and cut into the length, breadth, and form of splints. These being soft, will accommodate themselves to the figure of the joint, and, when dry, effectually preclude all motion."

"The remedies thus applied will not require very frequent removal. The time during which they may be left undisturbed, will depend chiefly on the necessity for a repetition of the bleeding, in which we must be guided by the degree of pain, or, when there are open abscesses, by the quantity of the discharge. Should neither of these influence the question, the only necessity for removing the dressings will arise from their having ceased to keep up any irritation in the skin. In some cases it will be necessary to re-apply them every week; in the generality of instances they may be allowed to remain a fortnight, and in others for a longer time. Even where there are open wounds, I allow them to remain several days or a week, being fully convinced by experience that the presence of the matter does less harm than the frequent disturbance of the part. A strumous ulcer can scarcely be disturbed too seldom; nothing does so much harm as officious dressing and probing."

"The remedies I have just detailed may be employed for any length of time, and over any extent of surface that may be necessary, without irritating the constitution or producing salivation. They also admit of being varied and modified in as great a degree as the disease varies or is modified by them; they are consequently adapted to disease commencing in any of the structures of which a joint is composed, as well as to the various stages in which it may be found."

A number of cases are appended to the work, to illustrate this plan of treatment and its efficacy.

---

9. *Manual of the Physiology of Man, or a concise description of the Phenomena of his Organization.* By Ph. Hutin. Translated from the French, with notes by Joseph Toono, Student of Medicine.

One of the distinguishing characteristics of the present age are the facilities given to the acquirement of knowledge. Science is taught in horn-books. Learning is adapted to the capacity of every intellect, and condensed into a bulk that may be seized on by the most occupied, and acquired by the most listless. If no road has yet been struck out to conduct a royal idler to the temple of knowledge without exertion, at least something in the nature of literary velocipedes has been discovered, that push us along with ease and rapidity over the tract that of old was traversed with toiling exertion. What with conversations, catechisms, dialogues, manuals, and philosophy in sports and in toys, ignorance will not have a nook to shelter in. Knowledge is becoming universal. It is scattered over the tables of our parlours, and the toilettes of our females; it may be listened to in our kitchens, and infants who formerly were mewling and puking in the nurse's arms, now lisp philosophy.

Our own science is not without these aids to learning made easy. Heretofore they have consisted in dull, unconnected questions and answers, intended merely for the use of dunces to assist them in passing an examination. They are of English manufacture, and are on a level with the state of medical science in that country. We are indebted to the younger, highly intelligent and

active members of the profession in Paris, for a far superior order of works of this kind under the title of "Manuals." They are composed for the use of students, who resort from all quarters of the world to that great seat of medical instruction. Each manual contains a summary of the branch on which it treats, and they are all, as far as we have seen of them, some ten or twelve in number, written with admirable talent. They are the best text books for the student, and present in a compendious view the present state of the science. They may be consulted advantageously by all who wish to acquire the most recent information, and obtain a knowledge of the progress of the medical sciences.

One of these "Manuals," whose title is prefixed to this article, has been translated by Mr. Joseph Togno, a student of medicine in the University of Pennsylvania. M. Hutin, in composing his manual, has taken the large work of Adelon, the best treatise extant on physiology, as his guide, though he has not followed the order of arrangement of that work.

In an introductory chapter we are presented with a general consideration of natural bodies, exhibiting the differences between inorganic and organic bodies, between animals and vegetables, and the principal distinctive circumstances of animals in general.

The functions, "the means of existence," are divided into two classes. The first embraces those that sustain the life of the individual; the second, those which serve to preserve the species, to which is an appendix embracing ages, individual differences, sympathies, and death. This classification of the functions which approaches a natural arrangement, is adopted with some modifications from Richerand.

In giving a translation of this little work, Mr. Togno has rendered an important service to the American student, and it may truly be said to the profession at large, for correct physiological knowledge cannot be too widely diffused. It is the basis of all sound doctrines and safe practice in medicine.

The translation, from a hurried perusal, appears to us to be faithfully executed, and renders the exact meaning of the author. A few unimportant errors, chiefly typographical exist, that a second edition, which we do not doubt will be called for, will give an oppo/ nity to correct.

A translation of the same work has been done in London, but executed in a most slovenly manner. It is filled with errors, evidently arising from a superficial acquaintance with the French language. For instance in page 293, digéré, (digested,) has been mistaken for dirigé, and been translated "directed towards," which makes nonsense of the passage. At page 148, we meet with a translation the very reverse of the original, and a mistake so gross we doubt that the translator is a physiologist. In the original, speaking of the great sympathetic, it is observed, "il existe chez tous les anencephales, il sert donc immédiatement à la vie végétative." This is rendered, "we meet with it in every animal *provided with a brain*, it actually then is in a direct manner subservient to *negative* life." There are many other mistakes manifesting an equal deficiency both in the language of the original, and the science the subject of the work.

Some notes have been added by the translator that are judicious and appropriate. In a note to the paragraph treating of the vesiculæ seminales, page 222, the translator mentions he had discovered in the human subject while dissecting,

the last spring, a muscular coat to these organs, as well as a sphincter to their ducts and vas deferens. Cuvier had noticed a structure of this kind in the elephant, but Mr. Togno is the first who has observed it in the human species.

---

10. *Essai sur les Maladies de l'Oreille Interne.* Par J. A. Saissy, D. M. &c. Ouvrage Couronné par la Société de Médecine de Bordeaux, et considerablement augmenté par l'auteur. Paris, 1827, pp. 284, 8vo. with a plate.

Of the diseases to which mankind are subject, none are involved in greater obscurity than those of the organ of hearing. This may be in part ascribed to the complicated structure of the auditory apparatus, and to its situation, which is such as by no means to facilitate the researches of ordinary inquirers, but is especially owing to the apathy induced by the belief that the nature of its derangements are so obscure that all inquiry is fruitless and unnecessary. It would be foreign to our purpose, on the present occasion, to enter into a particular refutation of this opinion. That there are difficulties to be encountered in the investigation must be conceded, but they are far from being insurmountable.

As the subject is one of great importance, we hail with pleasure every attempt, however feeble, to throw light upon it. The essay of Dr. Saissy, is not intended as a complete treatise on deafness; it presents, however, a very interesting sketch of the pathology and treatment of that affection, and if not enriched with many novel views, at least has the merit of presenting a lucid sketch of what is at present known; and contains a description of an instrument he has devised, by means of which fluids may be injected into the Eustachian tube. The work is divided into six sections. In the first, the author treats of the diseases of the membrana tympani; in the second, of those of the cavity of the tympanum, of the bones found there, and of the mastoid cells; in the third, of the affections of the interior of the Eustachian tube; in the fourth, of those which attack the parts in the neighbourhood of that tube; in the fifth, those of the labyrinth; and in the sixth, those of the auditory nerves.

We shall not notice this work more particularly at present, as we intend hereafter to give an elaborate review of the principal works on the subject, so as to present a monograph or condensed view of the actual state of knowledge in relation to the diseases of the ear; we shall on that occasion recur to the subject of the present notice.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Woman who had three Mammæ.*—Dr. Robert, of Marseilles, communicated to the Academy of Sciences an account of a woman who, in addition to two mammæ placed in their natural situation, had a third situated in the left groin. This inguinal mammæ served to suckle several children, one of whom was not weaned until thirty-three months old. The mother of the woman had three mammæ, but all upon the chest.—*Bulletin des Sciences Medicales.*

2. *Absence of the External Organs of Generation and Anus.*—A case is related in the *Journal de Médicine*, of a girl, æt. fourteen, well formed, who had not the slightest appearance of external organs of generation or anus, the skin being continued over the parts where these organs are usually situated. The girl had a good appetite, slept well, and enjoyed excellent health. At the end of every three days she suffered considerable pain around the umbilicus, after which she vomited fæcal matter from the mouth. The urine passed away by the nipples.

3. *Open Foramen Ovale.*—Dr. Crampton believes that an open foraman ovale is a more frequent occurrence than is supposed. He relates two cases in which he has observed this formation: one in a boy of eighteen years of age, and the other in a man of thirty-four. In the former, "the septum between the auricles exhibited an oval depression, or attenuated space of about one-third of an inch in diameter, guarded only by a thin membrane; but at one side it was evidently pervious and open, with a rounded and thickened edge. This membrane acted like a curtain or valve; when viewed or pressed from the left auricle it was closed, the curtain or membrane pressing close, and overlapping the opening; viewed from the right auricular cavity, or touched with a probe, it opened, and allowed a free passage, fully as large as a goose's quill, compressed so as to exhibit an elongated or oval section. The blow-pipe exhibited the same difference of a closed or open space, as it was used from the left or right side of the auricular septum." In the latter also, the valve overlapped and protected the aperture so that no blood was likely to pass, unless the contracting power of one side of the heart prevailed over the other. As in the former case, the curtain was more readily pushed aside, from the right to the left. Dr. Townsend relates a similar malformation in a man aged thirty-four, who died in the Whilworth Hospital.—*Transactions of the King and Queen's College of Physicians in Ireland, Vol. V.*

4. *Malformation of the Genital Organs.*—"An individual, ætat. twenty, was lately admitted into one of the female wards of Guy's Hospital, who exhibits the following peculiarities. This person has never menstruated, but at the usual periods feels symptoms of constitutional derangement, indicating the natural efforts

to perform that function. The clitoris is about the size of the penis of a boy ætat. twelve or thirteen. Where the urethra is situated in the male there is a portion of skin, as if nature had attempted to form an urethra. The opening to the bladder is at the bottom of this, and in the usual situation of the female urethra. In each labium is a small body like a testis, with a very indistinct epididymus, and a cord, together with a vessel like the vas deferens. The vagina is about an inch and a half in depth, and terminates in a cul de sac. In passing the finger up the rectum, no body like a prostate can be felt, nor any tumour like an uterus distended with retained menstrual fluid. The countenance is feminine; there is no development of the mammæ, the breast being perfectly flat; the nipple and little areola round it as small as in the male. There is more muscularity shown in the legs; and they have more hair than in the female. The same was observed with regard to the arms. The shoulders are broader also. The pelvis and knees more of the masculine character. The larynx too exhibits the appearance of the male. She states, however, unequivocally, that her passions are decidedly for intercourse with the male.

"This young person has been farther examined by an eminent accoucheur since the above was transmitted to us, and we subjoin an account of his observations.

"The individual either has no uterus, or in place of it a mere vestige of womb, not bigger than the first joint of her little finger. The upper part of the vaginal canal is wanting, though it is not improbable that a compact cordy structure supplies its place—a point which, if it be deemed necessary, may be easily ascertained by farther investigation. The bodies in the labia feel decidedly much more like testicles than ovaries. That ovaries exist in the pelvis is almost certain, because there are female desires, and efforts at vicarious menstruation. The perinæum is masculine; the feel of the abdomen partakes little of the feminine character; across the hips she measures twelve inches, and across the shoulders fifteen inches and one-eighth, a somewhat masculine proportion. Both the clitoris and testicles may, I conceive, be safely taken away."—*London Medical Gazette, Vol. I. No. 7.*

5. *Absence of Pericardium.*—In the fifth volume of our preceding series we noticed a case of this kind, recorded by M. Breschet, another similar one is reported in Rust's Magazin, vol. xxiii, 1826. The heart floated freely, and without a pericardium in the left thoracic cavity.

PHYSIOLOGY.

6. *Organization and Functions of the Spleen.*—M. Strauz has made some microscopical observations upon the texture of the spleen of an elephant. He could not detect any appearances which are common to the fibrous or vascular tissue. Some of the filaments in the substance of the viscus were about half a line in diameter, and were open; but instead of finding a canal within them, as he had before imagined was the case, he observed that they contained a pulpy matter, similar to that which is seen in nerves. He hence concluded that the spleen was a plexus dependent upon the ganglionic system of nerves. M. J. Arthaud agrees in the accuracy of M. Strauz's remarks; and, from experiments he has himself made, he draws the following inferences:—

1st. In the vertebrated animals the existence of the spleen is always connected with that of the nervous system.

2d. The spleen is not apparent until the second month of pregnancy; at which period the ganglionic system of nerves becomes evident.

3d. It presents similar alterations to those which are made upon the nervous system, by variation of age; by the degradation of the inferior animals, and by various preternatural formations.

4th. In true acephalous cases, the disappearance of the spleen is a constant occurrence.

5th. Those substances which especially stimulate the nervous system, act very powerfully upon the spleen, which is always tumefied by their influence.

6th. The tissue of the spleen preserves in pure water the density which it had acquired by previous immersion in a mixture of seven parts of water, and one of nitric acid; while the vessels which enter into the composition of the organ are softened and become putrid.

7th. Numerous facts lead to the conclusion that an alteration takes place in the spleen, in that class of intermittent fevers which the ablest practitioners have deemed to be nervous affections.

8th. M. A. imagines that he can show, by experiment, and by facts, from comparative anatomy, that the spleen is nothing more than an electric apparatus, by the agency of which the blood undergoes a particular modification. He promises shortly to enter more fully into this perplexing subject, and also to offer some original observations upon the functions of the nervous system.—*Journ. des Progrès, Vol. VI.* 1827.

—

7. *Hæmorrhage from the Bladder vicarious of the Menses.*—M. Lisfranc reported to the Royal Academy of Medicine, the case of a woman whose vagina was completely closed by adhesions, and who on two occasions had at the menstrual period discharged blood from the bladder.

—

8. *Vicarious Hæmorrhage from the Lungs.*—A female, æt. sixteen, was attacked towards the latter end of the year 1826, with a severe cold, fever, and a slight spitting of blood. This catarrh lasted two months, but had entirely ceased when, at the period when the menses should have appeared, she expectorated in abundance a frothy bright-coloured blood, almost pure. The menses did not appear, and the spitting of blood continued during the whole time they ought to have flowed. After this she got well, and on the following month the menses appeared regularly, but at the next period they were again suppressed, and as on the first occasion, there was a continued hæmoptysis. The month after the catamenia flowed, but have not again appeared for four months, during which time the hæmoptysis has come on regularly every day at nearly the same hour, in the same quantity, and of the same kind. The blood is apparently arterial, and is scarcely mixed with mucus. The patient is under treatment at the Hospital La Charitié.—*London Medical Gazette, Vol. I. No.* 6.

—

9. *On the Evolution of Heat during the Coagulation of the Blood.*—Dr. Davy has shown, that the opinion of Dr. Scudamore, that when the blood coagulates, heat is evolved, is incorrect; at least that the experiments upon which that opinion is founded, are entirely inconclusive. It would seem from Dr. Davy's experiments, as well as from those of Mr. Hunter, that if any heat is evolved during the coagulation of the blood, it is too inconsiderable to be detected.—*Edinburgh Medical and Surgical Journal, April,* 1828.

—

10. *On the Carbonic Acid in the Blood.*—Sir Everard Home and Dr. Scudamore have attempted to prove that blood, both arterial and venous, contains a notable quantity of carbonic acid gas, uncombined and free, a portion of which always separates when blood spontaneously coagulates, and the whole of which is disengaged when atmospheric pressure is removed by means of the air-pump. Dr. Davy, in a note published in the Philosophical Transactions for 1823, asserted that the blood gives off no carbonic acid gas under the circumstances specified, and that it contains none, and in addition to the reasons that he there stated for his opinion, he has published the following additional one in the *Edinburgh Medical and Surgical Journal,* for April, 1828. He added carbonic acid gas to blood and to serum, over mercury, at the rate of one-fourth cubic inch of gas to the ounce, the whole of which was absorbed, and yet the blood and serum still ex-

hibited free alkali, indicated by the change produced on litmus and turmeric paper; and he raised the temperature of the blood and serum to blood-heat, and no carbonic acid gas was disengaged; and he has coagulated both by heat of about 200° Fahr. and even then not a particle of gas was extricated. If then, blood and serum have the power of retaining at the temperature of 200°, and in the act of coagulation, carbonic acid gas added at the rate of one-fourth cubic inch to the ounce, and if this portion of carbonic acid is not sufficient to neutralize the free alkali of the blood, it is hardly probable that blood can possess any free carbonic acid gas.

11. *On the Irritability of the Sensitive Plant.*—"M. Dutrochet has collected into a single volume the long and important researches which he has made upon the moving powers which act in organised bodies. His experiments on the sensitive plant occupy an essential part of this work. A new procedure, which he has employed in vegetable anatomy, has led him to results which would tend to invalidate a celebrated theory. He asserts, that all the elementary organs of plants, that is to say, the cellules and tubes of which their body is composed, have an independent existence, and form circumscribed organs; so that these organs would only have to each other relations of vicinage, and would not form, by their assemblage, a really continuous tissue. He affirms, that there are neither pores nor fissures visible to the microscope in the cellular tissue, any more than in the fibres of vegetables. There are only seen on the walls of these organs small semi-transparent globular bodies, and linear bodies, which become opaque from the action of acids, and are rendered transparent by that of alkalies. M. Dutrochet considers these small bodies as the elements of a diffused nervous system. To the analogies of intimate structure and chemical nature, which he brings forward to support this opinion, the author adds physiological considerations, taken from experiments, which are peculiar to himself; and which, in his opinion, prove that the motions of vegetables are spontaneous: in other words, that they depend upon an internal principle, which immediately receives the influence of external agents. Refusing to admit *sensibility* in vegetables, M. Dutrochet substitutes for this term that of *nervimotility*.

"With regard to the organ of motion in the leaves of the sensitive plant, M. Dutrochet has proved, by decisive experiments, that it consists in a bulging of the parenchyma, or of the *cortical medulla*, which is situated at the base of the petiole, and at the base of each of the leaflets of which the leaf is composed. He has discovered that this organ, to which he has given the name of *bourrelet*, is composed of globular cellules, disposed in longitudinal series, and filled with a coagulable fluid. It is not by means of joints that the sensitive plant, any more than the other irritable vegetables, moves its mobile parts; but by means of a curvature impressed on these parts in the place where the organ of motion occurs. Thus, in the sensitive plant, it is the bourrelets alone that, by curving, produce the folding of the leaves. M. Dutrochet has found that this curvature is the result of a vital elastic power, which even manifests itself in the thin slices that are taken from these bourrelets. He has given the name of *incurvation* to this phenomenon. Thus the vegetable irritability consists only in an elastic incurvation, which is sometimes fixed and sometimes oscillatory. For example, this elastic incurvation is fixed in the tendrils of vegetables, in the valves of the ovarium of the balsamine, &c.; it is oscillatory in the vegetables that are named *irritable*—vegetables which present in their mobile parts a state of alternating incurvation and straightening.

"It has long been known that the sensitive plant presents a phenomenon of sympathetic transmission. If one of the leaflets of this plant be slightly burnt with a burning-glass, all the leaflets belonging to the same stalk will fold themselves one after another. This motion deserves to be carefully examined; and in order to determine the part of the stalk by which the transmission in question is operated, M. Dutrochet made several very delicate experiments, from which

there results that it is neither produced by the pith nor the bark, but that it takes place exclusively by means of the woody part of the central system. Inquiring afterwards what, in this woody part, are the special organs of the transmission in question, he arrives at the conclusion of its being effected through the medium of the sap contained in the tubes which he names *corpusculiferous*. He has found that the maximum of velocity of this motion of transmission is fifteen millimetres per second in the petioles of the leaves, and only three millimetres per second in the body of the stalk. The state of the temperature does not appear to have any influence upon its velocity.

"Light exercises a very remarkable influence upon the irritability of the sensitive plant, the observation of which equally belongs to M. Dutrochet. If a sensitive plant be placed in complete darkness, by covering it with an opaque vessel, it will entirely lose its irritability, and that in a variable time, according to a certain state of depression or elevation of the surrounding temperature. Thus, at a temperature of from twenty to twenty-five degrees of Reaumur, it requires only four days of darkness to destroy completely the irritability of a sensitive plant; while fifteen days of darkness are required to produce the same effect when the surrounding temperature is within the limits of ten and fifteen degrees; so that, on only taking the degrees of temperature in which the sensitive plant can live, it may be established that the extinction of the irritability of that plant in darkness is operated in a period, the duration of which is in the inverse ratio of the elevation of the temperature.

"M. Dutrochet has observed that the sensitive plant deprived of its irritability by means of darkness, recovers it by exposure to light; and that this restoring of the conditions of irritability is more rapidly effected by exposing the plant to the direct light of the sun, than by exposing it merely to the light of day, such as it exists in the shade. From these observations, M. Dutrochet considers light as the external agent from the influence of which vegetables draw the renewal of the conditions of their irritability, or, more generally, of their *motility;* conditions which are subject to deperdition in the natural state, and which thus require to be continually repaired."—*Edinburgh New Philosophical Journal.*

—

12. *Case of a Female, who attained her seventeenth year, without giving indications of sensation or motion from Birth.*—Davies Gilbert, Esq. President of the Royal Society, relates in the April number of the *Edinburgh Medical and Surgical Journal*, a most extraordinary case of a female who was somewhat prematurely born, appeared at birth to be very feeble; gave no indications of the usual instinct which guides infants to their natural food, and who was taught with great difficulty to take the breast. One eye was smaller than the other. "Except this excessive weakness in the muscular motions, and total deficiency of the ordinary sensations and appetites, nothing particular was remarked for several weeks after birth, when convulsive fits took place, and increased in violence and frequency of recurrence till they exceeded one hundred in twenty-four hours. Every method that could be suggested by various medical attendants to counteract these fits of convulsions was tried without success. She nevertheless continued to grow in length much like other children. But the defects in motion and sensation increased and became more apparent. Though she originally gave indications of sight, blindness came on; and cataract was observed in the eye originally of the natural size. The sense of hearing, if it existed at all, was very obtuse. Latterly it was impossible to doubt that she was quite deaf. Though she got a first set of teeth, these were not succeeded by others, so that they were temporary only. The sense of taste seemed to be tolerably perfect, as fruit, confections, custards, and other sweet articles were received with indications of pleasure.

"She never acquired any thing like the power of voluntary motion; and she attained her seventeenth year without ever having held up the head, raised her hand to her mouth, or set her foot to the ground. She never was heard to utter

any thing like an articulate sound; and a feeble cry or whine only was believed to indicate want of food. When this was gratified, especially with sweet articles, the countenance exhibited an expression of satisfaction.

"The bowels were habitually very slow, so as to require the perpetual employment of medicine; and to this no temporary exception was ever remarked. She never acquired any command over the sphincters.

"For some short time previous to death the weakness seemed to increase; and exactly on the day when she completed her seventeenth year, she expired in a manner so gradual, that the attendants thought her asleep, when she was really dead.

"I understand that some indications of the menstrual discharge had been observed; and the usual marks of puberty were not wanting. I am not aware, however, that the mammæ had enlarged.

"Her length must have been equal to that of many persons of her age. The spine and limbs were distorted; and the person was much emaciated."

After death the body was inspected by James Coles, Esq. who gives the following account of the dissection.

"On opening the cranium, the first thing which presented itself to observation was the very great distention of the vessels of the brain and of its membranes. The first longitudinal sinus was particularly gorged, and marked its course by a raised dark blue line extending across the dura mater from before backwards. We laid it open, and found it filled with coagulated blood.

"On proceeding with the dissection, we found some little water in the lateral ventricles; but this is often poured out after death in the healthy subject; and as the contents of the ventricles were perfect, more particularly the optic thalami, I should be inclined to consider that as a natural appearance.

"On removing the brain from the basis of the scull, so as to expose the nerves, we could trace each pair taking their usual course to their destination; and they all appeared firm and healthy, as in the most intelligent individual. But in the base of the scull itself, not a vestige of the dura mater was to be seen. Its place was supplied by a thin semitransparent membrane, very lax and irregular, so that it afforded no protection to the nerves in their exit from the scull.

"On the back part likewise, the whole, or the greater part of the *tentorium* was deficient, thus allowing the whole weight of the brain to rest on the cerebellum.

"We proceeded carefully to trace the nerves to their separate organs, and found them in every respect seemingly perfect. Indeed the optic nerves appeared particularly developed, as also the ophthalmic branches, although cataract existed in both eyes to a very considerable degree. Nothing further appeared worthy of observation. From these circumstances, I should be inclined to say, (as far as human research can explain the mysteries of our nature,) the causes of the child's deficiency were as follow.

"That from the want of the *dura mater* on the base of the scull, and its place being only imperfectly supplied by the thin expansion before mentioned, the mass of brain was allowed to press on the nerves of sense as they passed through their separate foramina, and thus their vital principle became destroyed; and that the cerebellum, not having any protection, in consequence of the want of tentorium, was also pressed upon by the cerebrum, which likewise suffered in its turn, thus probably accounting for the total extinction of intellect."

Sir Anthony Carlisle published many years ago, in the first volume, page 212, of the Transactions of the Society for the Promotion of Medical and Surgical Knowledge, the history of a woman, apparently twenty, who died of fever in the Westminster Hospital. In the brain of this woman, the falx was entirely wanting from the *crista galli* to the *tentorium*, the opening in which also was much larger than usual; and consequently not only did the one hemisphere press the other, but part of the brain gravitated on the cerebellum. Yet in this

woman the intellectual powers were said to be perfect, and she had no particular complaint of her head.

13. *Cutaneous Absorption.*—"The subject of cutaneous absorption, and of absorption generally, has been lately investigated by M. Collard de Martigny. He has succeeded in establishing completely the reality of absorption through the skin, and has thrown considerable doubts over the doctrine advanced a few years ago by Magendie and Fodera, and now so generally adopted, that substances are absorbed throughout the animal system by a process of simple mechanical imbibition. As his experiments on these two topics appear to us important and conclusive, we shall give a short account of them. It is well known that Seguin, Magendie, and other anterior physiologists have maintained, that the skin when not deprived of its cuticle, is incapable of absorbing any substances which do not irritate the cuticle, or alter it in one way or another. This, however, does not appear to be the general opinion; yet we are not aware that any very conclusive arguments have hitherto been brought forward to prove the existence of simple absorption through the cuticle. The vagueness of the foundation on which the general opinion rested led M. de Martigny to endeavour to establish it upon more solid facts; and he has made a great variety of experiments, which seem to put its accuracy beyond all question.

"He first placed upon the palm of the hand an inverted glass funnel filled with water, and remarked an obvious diminution of the water in the tube of the funnel after an hour or even less. He then varied this experiment, using precautions to preserve the pressure of the hand on the funnel uniform, as well as to prevent the evaporation of the water, and he still observed a sensible diminution. The following very simple experiment gave equally pointed results: In two small vessels of the same form and size he placed equal quantities of water, one being placed at his side exposed on the surface to the air, while into the other he put his two hands for half an hour. He then removed them and dried them in a handkerchief, the weight of which was taken both before and after this operation. The water of the two vessels was likewise weighed, and the proper correction being made for what was removed by the handkerchief from the hands, he found that one hundred and seventy-eight grains had been lost by absorption. Similar experiments were made with milk and with beef-tea, and the results were analogous. It appeared to him that the beef-tea was absorbed more rapidly, and milk more slowly than water. On subsequently resuming the investigation he employed a still simpler method. He placed a few drops merely of the fluid to be examined on the inside of the arm, covering them with a small watch-glass, and allowing the experiment to go on for eight or twelve hours and upwards. In this way he remarked that water and brandy were absorbed altogether, and wine, beef-tea, and milk almost entirely. On next extending his researches to oleaginous substances, he arrived at the singular conclusion, that cutaneous absorption is not exercised upon them at all.

Our readers will perhaps remember that Bichat, Magendie, Legallois, and others, have found that oleaginous fluids, directly introduced into the blood, obstruct its passage through the capillaries, and excite inflammation there. They likewise appear to undergo a species of digestion before they enter the lacteals, when they are swallowed as food; and further, when placed in contact with the serous membranes, they are absorbed very slowly, and not till they undergo a species of saponification. In a state of purity, therefore, they cannot enter the blood without causing serious injury. In the alimentary canal this is prevented by their digestion; in the serous cavities by their saponification through means of the serum. On the skin, where there is neither gastric juice nor a serous fluid, it is prevented by their being incapable of passing the cuticle. M. de Martigny found that they did not lose an atom of weight, after being eleven hours in contact with it.

"The author concludes this department of his subject by endeavouring to

determine the circumstances which regulate absorption through the skin. He has discovered that it is most rapid on those parts of the body where exhalation is greatest. He has farther remarked, that while exhalation is going on, there is no absorption; that absorption is diminished during exercise or by an increase of temperature; and that it is increased by a depression of temperature or by the evacuation of blood. In short, cutaneous absorption is influenced by every particular in the inverse ratio of cutaneous exhalation.

"The other question which the author has endeavoured to investigate relates to the mechanism by which absorption is effected. The experimental inquiries of Magendie and Fodera are conceived by many physiologists to be conclusive of the fact, that absorption is carried on by a process of simple imbibition; in other words, that in reaching the absorbent vessels substances percolate the living exactly as they do the dead tissues. It has always appeared to us, however, that the experiments of Magendie were liable to important objections, and that even the more conclusive experiments of Fodera, while they prove that mechanical imbibition or filtration does sometimes occur in the living body as through dead membranes, do by no means also prove that this phenomena is not materially under the influence of the vital principle. The experimental reasoning of these two physiologists has been very ably criticised by M. de Martigny, and its fallacies exposed. To the experiment of Magendie, which consists in insulating a vein and applying an active poison to its surface, he very properly objects that the poison may have entered the blood not by filtration but through the *vasa vasorum*. He admits, however, the conclusiveness of the experiment of Fodera, in which he found that substances injected into the peritonæum might be soon afterwards discovered in the chest; but he insists that the existence of such an imbibition is no argument against the existence also of a special action of absorption; and such a special action, has, we think, been proved by him to occur in the following phenomena. Into the stomach of animals killed the previous day, he injected a weak solution of hydrocyanate of potass, and four minutes afterwards he observed that the outer surface of the stomach became of a uniform blue colour when tested with the sulphate of iron. He then repeated the same experiment on living animals with the following results. Twenty minutes after the injection of the hydrocyanate, when none of it had reached the outer surface of the stomach, he poured several drops of the sulphate of iron over it. It was not till five minutes afterwards that he remarked here and there a faint blue tint not uniformly diffused as in the former instance, but arranged in a fine network; gradually the tint deepened and extended itself, its reticulated structure became less distinct, and at length a uniform blue stain was formed, as in the dead animal. It is not easy to see to what the slow progress of the fluid through the living stomach is to be attributed, unless to the permeability of the tissues being modified by their vitality. He has also endeavoured to establish the doctrine of special absorption by the following experiment, in which an attempt is made to show that absorption is under the influence of the nervous principle. Having divided all the nerves which supply the hind leg of the rabbit, he tightened a ligature round the whole thigh, exclusive of the vein and artery, and introduced a solution of the extract of nux vomica into the lower part of the leg. He then found that the poison operated more slowly than when the nerves were left entire. In conclusion, therefore, from these and other familiar facts, the author argues that the new doctrine of absorption must be modified by a partial return to the old; and he adopts the opinion, that this function is carried on by a special and elective action of the capillaries."—*Ed. Med. and Surg. Journ. April*, 1828.

—

14. *Nature and Composition of the Sweat and Insensible Perspiration.*—"This subject formed the prize question of the Heidelberg Medical Faculty in 1821; and the following are the principal results obtained by the experiments of the successful candidate, Dr. Anselmino. The insensible perspiration was collected by confining the arm for some hours in a long glass jar, the mouth being secured

to the arm by fine oil-cloth, and the whole kept cool by a stream of cold water. By this method about a table-spoonful was procured in five or six hours. It was neither acid nor alkaline. It gave a copious precipitate with lime-water; emitted ammonia when it was evaporated to dryness, with a little sulphuric acid, and then decomposed with potass; and gave out a strong acetic odour when it was digested with litharge, evaporated to dryness, and then treated with dilute sulphuric acid. Hence it contains carbonate and acetate of ammonia. If the arm was allowed to touch the glass vessel, other salts were also found in the fluid condensed on its inside; but these salts belong properly to the sweat. The volatilizable part of the sweat is similarly composed, but it contains an excess of acetic acid. The residue of the distillation at 212° consists of chloride of potassium, acetate of potass with an excess of acid, a small quantity of chloride of sodium, phosphate of lime, a small quantity of alkaline sulphates, a trace of iron, a matter analogous to salivary matter, and other resembling osmazome. It does not contain lactic acid, the acid once supposed by Berzelius to be the lactic, being, as that author subsequently conceived, the acetic rendered less volatile being united with animal matter. The existence of iron in the sweat has been since confirmed by Professor Gmelin, who was induced by Anselmino's researches to inquire into this particular. Anselmino's Essay likewise contains a few remarks on the nature of the sweat in diseased states of the system; but his experiments on this department have been hitherto confined to its state in rhematism. The sweat of a person who had been long affected with rheumatic fever, and profuse perspiration, was of the same nature and composition as natural sweat. The critical sweat of a case of acute rhematism contained albumen, and the product of the distillation was not acid, but alkaline. Next day, after the crisis had been accomplished, it did not contain albumen."—*Ibid, from Zeitschrift für Physiologie, II. ii.* 1827.

15. *On the Effects of Extirpating the Kidnies.*—"It has been recently proved by MM. Prevost and Dumas, that the removal of both kidnies is not necessarily followed by the cessation of the secretion of the characteristic principles of the urine; that in particular urea may be detected by a careful analysis in the blood; and that consequently we may presume the urea of the urine is not elaborated by the kidnies from the blood, but is merely separated by them from it. These results are very strikingly confirmed by experiments which have been lately published by Professor Mayer of Rome, but which appear to have been performed about the same time with those of the Swiss physiologists. Mayer remarked, that when both kidnies were removed from Guinea-pigs, the animals generally perished during the first day, and no remarkable appearance could be detected after death. But some of them lived two days and upwards, and in them, serum effused into the peritoneal sac, into the chest, and even into the brain, as well as the contents of the stomach and intestines, the testicles, epididymus, vas deferens, and vesiculæ seminales, the liver, the substance of the lungs, the whole muscles, and the blood in the heart and great vessels exhaled a decided urinous odour. These phenomena, which were remarked in several animals, clearly show that not only is the urine separated in the kidnies from the blood by a species of elective filtration, if we may use the term; but likewise, that, when this outlet is shut up, it may be separated by almost every secreting organ in the body. The author, Professor Mayer, anticipates the objection, that the urine found throughout the body might have been absorbed from what remained in the bladder at the time of the operation; and replies to it that the absorption which takes place in that organ, while its communication outwardly remains open, is far too trifling to account for the presence of so large a quantity of urinous fluid throughout the whole system. The symptoms caused by the extirpation of the kidnies, according to Mayer, are gradual diminution of the pulse and breathing, and either death in a few hours without any other particular symptom, or convulsive movements of the abdomen, accompanied with cries, as of pain, increased discharge and more fluid consistence of the fæces,

rigors, profuse secretion of tears which smell of urine, and death generally in the course of thirty hours."—*Ibid.*

16. *Superfœtation.*—M. Delmas, a surgeon at Rouen, relates the case of a woman who was delivered, in the public hospital of that city, of two male children at one birth, one was white, the other of a tawny colour. The patient was in the eighth month of pregnancy. The two placentæ were united, and they were expelled a few minutes after delivery. The woman confessed that she cohabited with a white man, but that she had twice yielded to the importunities of a negro, when she presumed she was about the fourth month of her pregnancy. The children lived about three hours.

PATHOLOGY.

17. *Ossification of the Tunica Vaginalis.*—M. Yvan lately presented to the Royal Academy of Medicine, two cases of ossification of this membrane. They had been removed from the body of a man eighty-three years of age: the testicles were perfectly sound. M. Cloquet mentioned two similar cases which he had seen with Béclard. M. Amussat had extirpated a carcinomatous testicle, which was ossified in different parts.—*Archives Générale, Jan.* 1828.

18. *Diseases of the Biliary Ducts.*—Dr. Bouillaud is of opinion that these diseases cannot in general be ascertained during life. Excessive dilatation of the gall-bladder, or obstruction of the ductus hepaticus, or ductus choledochus, are nearly the only exceptions to this rule. Many pathologists have mentioned hepatic colic as a consequence of the presence of biliary calculi. But none of the patients whose bodies were examined by Dr. B. had complained during life of colic. He imagines that diseases of the bile ducts, and liver, are frequently aggravated, if not originally induced, by the immoderate use of purgatives. —*Journ. Complementaire, Dec.* 1827.

19. *On Paraplegia.*—Mr. Earle has published in the thirteenth volume of the *Medico-Chirurgical Transactions*, a very interesting paper on paraplegia. By this term he understands "that species of palsy in which both sides of the body are affected, in contradistinction to hemiplegia, where only one side is deprived of sensation, or motion, or both." Paraplegia has generally been considered as dependent on some morbid action existing in the vertebræ or spinal canal, and producing more or less pressure on the spinal marrow, especially in the lumbar region; and this is no doubt often the case; but Mr. Earle states, that symptoms very closely resembling those produced by morbid affections of the spinal marrow, will occasionally be found to take place in chronic diseases of the brain and its membranes. Dr. Baillie has asserted that "in adults, when the spine has not suffered from outward violence, paraplegia most commonly depends on a disease of the brain itself." This Mr. Earle thinks is too general an assertion, and that many cases occur in adults, wholly dependent on diseases affecting the spinal marrow. Mr. E. thinks that these two forms of the disease may be often detected during life by close attention. In paraplegia dependent on the existence of disease in the brain, the gait of the person is peculiar and very different from that attendant on affections of the spine, very nearly resembling the vacillating steps of a drunkard. "Such paralytic persons are incapable of walking in a direct line; the limbs are loose and thrown forward with an exertion of the whole body; there is a great consciousness of feebleness in walking, and the greatest difficulty in turning round. The appearance of the eyes often much resembles those of a drunkard, particularly when the patient is at all excited or anxious." "Sensation is more impaired than in spinal affections, when it will often remain perfect after a total loss of

the locomotive powers. This impaired sensation is often peculiar, imparting an idea of some foreign body, as a leather glove or stocking being interposed. The patient appears to feel, if I may use the expression, through a false medium; the limbs are more wasted and flabby, without any spasmodic rigidity of the muscles, which so often occurs in affections of the spine. Although often accompanied with a torpid state of the bowels, aggravated no doubt by the impaired muscular power of the abdominal parietes, there has not, in any instance that I have witnessed, been any train of gastric symptoms similar to those which so constantly attend affections of the spine, especially of the dorsal region. In some instances there is the additional confirmation of an impaired state of some of the external senses, accompanied with vertigo, a sense of weight on the head, and a general disturbance of the cerebral functions. As disease advances, the power of the brain in transmitting its influence to the extremities becomes more and more circumscribed."

When the disease has proceeded to the extent above described, one or more of the mental faculties become impaired, and in such cases Mr. E. thinks no reasonable doubt can be entertained respecting the real state of the disease. In slighter and more chronic cases it is more difficult to form a correct diagnosis: Mr. E. thinks that an attention to the following circumstance will materially assist in forming a correct judgment.

"It is well known that when a nerve is stimulated or injured in any part of its course, the painful sensation is referred by the percipient mind to the sentient extremity of such nerve; the familiar instance of the pain referred to the extremity of an amputated limb, may be adduced in proof of this. The exact reverse of this takes place when there is a partial paralysis arising from morbid affection of the cerebral organs. Here the centre of the sensorial functions being impaired, it appears to be incapable of transmitting its influence to the extreme parts of the body, and thus the feet and hands gradually lose their sensation or power of motion, or both; and in such cases if the nerves supplying the limbs be irritated, *they will convey the impression of such injury only part of the distance down the limb, about as far as the commencement of the paralytic affection.* I have repeatedly examined cases of paraplegia from affection of the spine, and in no one instance have met with the same phenomenon, which I have therefore been induced to consider as diagnostic of the paralytic affection being dependent on disease of the brain or its membranes; which opinion has in several instances been confirmed by examinations after death, in which both brain and spinal marrow have been carefully investigated."

A fertile source of error relative to the seat of disease in cases of paraplegia, arises, says Mr. E. from the incurved state of the spine, which frequently takes place in paralytic affections from morbid alterations of structure or pressure on the brain. Such cases may be distinguished by placing the person on a horizontal plane, when the back will immediately and spontaneously be restored to its proper form, without causing any pain or distressing symptoms, which would certainly be produced by any attempt at extension of a diseased spine.

Paraplegia in adults is often, no doubt, produced by chronic membranous inflammation of the brain and spinal marrow conjoined.

—

20. *Case in which the Foramen Ovale remained Open in an Adult, with a General Narrowing of the Aorta and Arteries, without the Morbus Cyanosus.*—"It has generally been supposed that the cause of the blue appearance of the skin in the morbus cyanosus was the aperture between the auricles of the heart continuing pervious after birth. M. Miguel has lately met with a case where this communication continued open, and yet there was no blueness of the skin; proving that the general supposed cause of the discoloration is not correct. The case is in itself interesting.

"Jean Antoine Adam, a jeweller, æt. thirty-six, came into La Charité, under M. Cayol, August, 1825. This man was fair, of small stature, and had never suffered from any severe disease; his complexion was red and white. When

young, he was subject to occasional difficulties of breathing, coming on in fits, once terminating in syncope: antispasmodics usually removed them. He was married, and had several children. At the age of thirty, without any apparent cause, the fits of difficulty of breathing became more intense and more frequent. During eight days, he had daily three or four attacks, each appearing likely to terminate his existence. His face suddenly reddened, acute pain in the heart and head, with palpitations, continuing for about a minute; then he grew pale and fainted. When the attack passed, he felt quite well, till another came on. This state, (strange to say!) was looked upon as the indication of some pernicious fever, and large doses of quina were administered to stop its course, but which increased it. After continuing thus during a week between life and death, a change took place: the difficulty of breathing, which had been periodical, became constant, and increased in violence; and the head-ache became intense. Venesection was prescribed, and the man felt himself resuscitated by the operation, ("Je ressuscitai a mesure que mon sang coulait.")

"For some weeks he was relieved, when the symptoms became again aggravated. He was again bled, and with similar success; and to this frequent bleeding, and the application of leeches, he owed the preservation of his life for six years. He says himself that there were more than six thousand leeches applied, and that he was bled seventy-two times during that period.

"At the present time he presents the following symptoms: Face pale and emaciated, without the least appearance of the violet or blue colour of the lips, cheeks, ears, or any part of the body; extreme anxiety; respiration short, oppressed, and laborious; orthopnœa; short, teazing cough; the chest resonant on all points, and the respiratory murmur apparent throughout; the whole body is agitated by violent palpitations of the heart; the pulse was small, unequal, intermittent; the limbs œdematous; the abdomen large and tense, and gave an evident fluctuation; the extremities were cold, and the general temperature of the body was under the natural standard; the bowels inclined to constipation.

"M. Cayol, in his diagnosis, stated that there was considerable hypertrophy of the left ventricle, with narrowing of the orifice of the aorta by a commencing ossification of the sigmoid valves. A diuretic mixture, with half a drachm of acetate of potash, was prescribed, with half a drachm of aq. lauri cerasi.

"The patient went on getting worse and worse. The smoking datura stramonium was tried, and for a short time gave much relief. The powder of belladonna was also tried, and it appeared to sooth him a little.

"On the 11th of September he died, and the body was opened thirty-six hours after death. On opening the chest, the heart, distending the pericardium, and pressing upon the left lung, appeared twice the natural size. The right ventricle and auricle contained some clots of black blood: their size was larger than natural. The auricles communicated by an opening as large as a two-franc piece, evidently the foramen ovale, not obliterated."—*Lond. Med. and Phys. Journ. April*, 1828, *from the Revue Medicale.*

21. *Stricture of the Colon.*—The following interesting case is related by the editors of the London Medical Repository. "A strong, stout, healthy man, aged about forty, whose bowels were habitually regular, was suddenly seized with a complete obstruction of the bowels, over which no remedies had the least influence; he had no particular pain, beyond a feeling of distention of the abdomen. At the expiration of about a fortnight, vomiting came on, which continued till his death; this took place about three weeks from the first attack. As soon as the abdomen, which was enormously distended, was laid open, the intestinal tube burst, from the pressure of its contents, and some gallons of semi-fluid materials came out. About sixteen inches from the anus there was a hard semi-cartilaginous stricture, so complete, as scarcely to admit a common-sized probe to pass through. There was no appearance of inflammation round it, nor did the tube either above or below seem at all inflamed. How the intestine can suddenly run into this state of organic disease, without exhibiting

any symptoms or subsequent appearances of inflammation, it is difficult to tell. The subject of this case was perfectly well up to the very time when the obstruction took place, and his bowels had been usually regular."—*Lond. Med. Repos. April*, 1288.

—

22. *Disease of the Spine.*—Mr. Auchincloss relates, in the first number of the *Glasgow Medical Journal*, a case of disease of the spine, in which the ulceration originated in, and was confined to the bone. This case tends to confirm the truth of the opinion first suggested by Mr. Brodie, regarding the difference in the nature and treatment of ulceration confined to the inter-vertebral substance, and the same disease affecting the cancellous structure of the bone.

—

23. *Deep-seated Tumour in the Neck.*—Dr. Syms relates, in the first number of the *Glasgow Medical Journal*, a case of obstructed respiration, and finally death, caused in a child four months old, by a tumour situated beneath the sterno-mastoid muscle, and great blood-vessels of the neck, and extending from the left side of the vertebræ to the mastoid process of the right temporal bone, and reaching to the base of the cranium behind the fauces. A small projection of it formed a tumour at the angle of the jaw, which was supposed to be a scrofulous gland. This is not the only case of this disease on record in which death has resulted from its nature not being understood. A very interesting case is related in Porter's Pathology of the Larynx and Trachea. The proper treatment is of course to open the abscess.

—

24. *Angina Maligna.*—M. Emangard has published in the *Annales de la Médecine Physiologique*, for March, 1828, some new documents, to prove that the angina maligna, (diphteritis of M. Bretonneau,) is not a specific phlegmasia, but an acute inflammation, attacking suddenly and extending rapidly; and that when treated with blood-letting at its commencement, its extension to the respiratory tubes and croupal suffocation is prevented.

—

25. *On the Peripneumonia of Children.* By Thomas Cuming, M. D. Assistant Physician to the Institution for the Diseases of Children, in Dublin.—Dr. Cuming has published in the fifth volume of the *Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland*, an elaborate and interesting paper on the peripneumonia of children, or the catarrhal fever as it is usually denominated here. Passing over the well known symptoms of the disease, which are most accurately delineated, we shall present a condensed account of his pathological investigations, and the method of cure which he has found most successful.

In a very few instances traces of inflammation were found in the pleuræ, as effusions of lymph and serum, membranous adhesions, &c. In two instances the lungs were thickly studded with small gray tubercles, and in another the exterior part of either lung contained a number of tubercles, several of which were in a state of suppuration. In the two cases in which the lungs were tuberculated, a general tubercular diathesis seems to have pervaded the system, as was indicated by the existence of tubercles in the peritoneum and pleura. In one of these cases the spleen was as thickly studded with tubercles as the lungs, and in both the mesenteric and bronchial glands were enlarged.

The most frequent, indeed constant morbid change met with, is an increase in the solidity of the lung, varying in degree from that of the slightest sanguineous congestion, up to complete hepatization, (the second degree of inflammation of the lung as described by Laennec.) The inferior and posterior portion is in general principally affected, and the upper portion is often healthy or only a little congested, when the inferior portion is completely hepatised. When sanguineous congestion prevails, it is generally combined with more or less of serous effusion into the interlobular tissue of the lung; but where the lung is hepatised, its section appears dry and granular and very little serous or any

other kind of effusion escapes. This increased solidity of the lung is combined in almost every case with more or less inflammation of the mucous membrane of the bronchia, extending sometimes to the trachea. In a few instances Dr. C. found the trachea and bronchia highly inflamed, and containing a considerable quantity of purulent mucus. In two cases in which no traces of inflammation could be detected in the trachea or bronchia, the air cells were filled with a purulent mucus, which exuded in abundance on making a section of the lung. Dr. C. met with but one case in which there was no appearance of disease in the mucous membrane of the trachea, bronchia, and air cells, and that was a case of pertussis combined with inflammation of the substance of the lungs, which terminated fatally by convulsions. The more intense the inflammation of the mucous membrane, and the more considerable the effusion into the bronchia, the less in general is the induration and vice versâ.

With regard to the abdominal viscera, besides the enlargement of the mesenteric glands, and tubercular depositions in the peritoneum already alluded to, in some instances Dr. C. found the liver unusually pale, in others it was in a state of sanguineous congestion, enlarged, and adherent to the parietes. In one case its surface presented a number of dun-coloured patches, which penetrated for some way into its substance. The spleen adhered in one instance to the peritoneum; in another the stomach was unusually contracted; and in two cases the small intestines were more vascular than natural, and displayed a number of intus-susceptions.

It is thus evident that the disease is a combination of bronchitis and peripneumony. As the disease is usually preceded by symptoms of catarrh, it is probable that the inflammation commences in the mucous membrane, and is propagated from thence to the substance of the lungs.

It also appears that death is caused either by "suffocation occasioned by the accumulation of fluids in the bronchia, or to that indurated state of the substance of the lungs, by which they are rendered totally impermeable to the air. While the one effect is owing to the effusion of mucous or pus into the air cells, the other seems to be the consequence of an effusion of lymph into the cellular membrane that connects the air cells."—For the treatment of this disease see Practice of Medicine, Art. 36.

—

26. *Softening of the Uterus.*—Dr. Lubroth has published in the fifth volume of the *Repertoire d'Anatomie*, a very interesting paper on this subject. The following is a summary of his observations:—

1. By softening, when applied to pathological anatomy, is generally understood the diminution of cohesion in organic tissues.

2. This alteration has been observed, with few exceptions only, in all the organs and tissues of the body.

3. Softening of the uterus seldom takes place but in the pregnant and puerperal states.

4. This complaint may be divided into three stages; the first, where the organ is only very flaccid, relaxed, soft, and often infiltrated with serum, but without any very remarkable alteration of structure; the second, where the uterus is very friable, and its structure altered to such a degree that its tissue presents but very weak traces of organization; and the third, in which there is a liquefaction of the part, or reduction of it, into an inorganic pulp.

5. If the softened parietes of the uterus are also thinner, the complaint may be termed atrophy of the organ.

6. The symptoms to which softening of the womb gives rise are vague and uncertain; additional cases are wanting before they can be determined with precision.

7. Softening of the uterus, and even the disposition to this alteration, may cause difficult or unnatural labour.

8. Rupture of the womb may occur with this alteration, particularly if the parietes are thin as well as softened.

9. In most cases this affection is produced or favoured by an inflammation of the organ; it is more rarely a primitive alteration, dependent on diminution of the vitality, and an anomaly in the nutritive action of the affected part.

10. The inflammation which precedes the softening has a tendency to effect a prompt disorganization, and belongs to that class which has been termed by some authors asthenic, putrid, &c.

11. Putridity of the uterus may be regarded as a kind of softening, and is generally seated in the neck of this organ.

12. Termination by resolution in putridity, as indeed in softening generally, is rare.

13. The diagnosis of these affections is difficult; an examination per vaginam, however, affords material assistance. The prognosis is always unfavourable, and the result generally fatal. No curative measures which have been devised appear to have any effect.

—

27. *Phthisis Pulmonalis.*—Dr. STOKES relates in the first volume of the *Transactions of the King and Queen's College of Physicians in Ireland*, some extremely interesting cases of phthisis pulmonalis. The following are the conclusions which he has drawn from them:—

"1st. That the development of tubercles in a predisposed habit is greatly favoured by an attack of continued fever.

"2d. That in this manner death may supervene apparently from the irritation of the tubercles, even before they have gone on to suppuration.

"3d. That these cases are much more rapid in their course, and accompanied by more violent symptoms than those of ordinary phthisis.

"4th. That when the extensive development of tubercle occurs simultaneously in the lungs, and the parenchymatous organs of the abdomen, the symptoms are those of the highest degree of catarrhal and gastric fevers.

"5th. That a patient labouring under such an affection may present most of the symptoms of violent inflammation of the stomach and intestines, without having these organs at all engaged.

"6th. That tubercles of the abdominal parenchymatous organs are, to all external appearance, identical with those observed in the lungs.

"7th. That the stethoscopic indications of the sudden and general development of tubercle in the lungs are those of violent bronchitis, with some pneumonia; the lung becoming to a certain degree dull on percussion, though still every where permeable.

"8th. That in these instances the heart does not undergo that diminution in size and consistence so remarkable in the common cases of phthisis.

"9th. That in cases of phthisis rapidly supervening after fever, general suppuration of the tubercles in the lung may take place in so short a time as seven days.

"10th. That a recurrent crepitating rale in the same situation, with gradual increase of dullness of sound on percussion, may be reckoned as an excellent diagnostic of the growth of tubercle.

"11th. That disease of the valves of the heart rarely occurs in phthisis.

"12th. That in cases of phthisis with intestinal ulceration, death may be occasioned by hæmorrhage from the bowels.

"13th. That the softening of a mass of tubercular matter in the lungs may be accompanied by the symptoms indicative of the formation of a common abscess, from inflammation of any of the internal organs.

"14th. That the aphthous ulceration of the bronchial mucous membrane, when it does occur, is generally met with in the air passages leading to a cavity of long standing.

"15th. That a patient may live for upwards of five months after the opening of a fistulous communication from the lungs into the cavity of the pleura.

"16th. That displacement of the heart in cases of empyema with pneumothorax, when the fistulous communication remains open, must be attributed to the pressure of the liquid effusion alone.

"17th. That the diminished size of the lung in such cases is probably owing to some other cause than mere mechanical pressure."

—

28. *Extensive alteration of nearly the whole of the Ganglionic Tissue of the Lymphatic Absorbent System.*—Dr. PALLAS relates in the *Journal Universel*, for October, 1827, the case of a female who had arrived at the age of fifty-one years, without suffering from any severe disease, and whose health suddenly changed after a violent access of anger. She perceived suddenly a very painful sensation in her stomach, accompanied with extremely painful vomiting. The legs became infiltrated, and one of them was covered with an erysipelatous inflammation; small tumours appeared under the skin of both legs, and a more considerable tumefaction was developed in the right side of the neck. In this state she entered the civil hospital of Pampeluna, where she died. On examination, there was found to be considerable emaciation; the skin, which had preserved its natural colour, was studded with a great number of subjacent tumours, except in the inferior limbs; and similar ones were found between the muscular layers, beneath the mucous membrane of the tongue, in the whole extent of the mesentery, upon the sides of the vertebræ, &c. One situated between the spleen and left kidney, weighed one pound five ounces. All these tumours had the consistence and colour of a clot of blood, and were enveloped in a kind of fibrous membrane; the intestines, especially the duodenum, were red and inflamed; the mucous membrane of the stomach pale, softened, (macerée,) and tearing with ease; the liver very large. It is probable that these tumours were owing to a morbid development of lymphatic ganglions; all the vessels of this system showed marks of sanguineous congestion.

This very rare, and perhaps unique case, is valuable, says M. Pallas, as elucidating the pathology of the lymphatic system, upon which professor Brousais has already thrown so much light.—*Annales de la Medécine Physiologique, Jan.* 1828.

—

29. *Inflammation of the Testicle.*—Mr. ROSE says, that as far as his experience goes, inflammation of the testicle produced by the metastasis of diseased action from the urethra, is the least frequent form of the disease met with, although by most systematic writers, a suspension of the discharge from the urethra, and a subsequent return of it, are pointed out as the general accompaniments of the inflammation of the testicle. If injections are employed for the cure of discharge from the urethra, the swelling of the testicle is often ascribed to a pernicious effect produced by them; but the late Mr. Pearson observed that it was as frequent where the cure was conducted without them; and in this Mr. Rose's experience coincides with his. It is probable, observes Mr. R., from little or no discharge being present in these cases, when the testicle swells, that it is so generally believed that a sudden stoppage of it occurs when this swelling commences, so that it has even been recommended to endeavour to re-produce it, by the introduction of irritating ointment into the urethra.

Mr. R. has seen, not unfrequently, swelling of the testicle, dependent on the inflammation extending from the parts about the neck of the bladder along the vas deferens.—*London Medical Gazette, Vol. I. No.* 16.

—

30. *Pneumothorax and Pleurisy, with Fistulous Communications between the Bronchia and Sac of the Pleura.*—Three cases of this extremely rare disease are recorded in the fifth volume of the *Transactions of the King and Queen's College of Physicians in Ireland;* two by Dr. TOWNSEND, and one by Dr. STOKES. We select the following, related by Dr. Townsend, as it differs in some of its characters from any case hitherto recorded, and proves, irrefragably, the value of the stethoscope as a diagnostic agent.

A tall, well-proportioned dragoon, was attacked, in October, 1826, with cough, pain in the chest, and diarrhœa; for which he was bled, blistered, &c. A recurrence of the same symptoms called for a repetition of these measures, which,

as well as several others afterwards employed, failed to produce any permanent advantage. Dr. Townsend saw him, March 25th, 1827, at which time he was up and dressed, "walked about the room, but was soon out of breath and easily fatigued. He was considerably emaciated, had much dyspnœa, not sufficient, however, to materially affect his speaking; profuse night-sweats, diarrhœa, thirst, anorexia; pulse 120, small, and vibratory; number of respirations 30. Cough most troublesome on awaking in the morning. Sputa apparently mucous, are stated to have diminished considerably in quantity within the last three weeks, from which period is also dated the aggravation of his dyspnœa. On viewing the thorax, the right side appeared considerably more dilated than the left, especially anteriorly and laterally, at its lower half. Percussion employed over the dilated surface elicited a clear, hollow sound. In this space too the respiratory murmur was perfectly inaudible; but immediately after coughing, a peculiar sound, resembling the vibrations of a porcelain jar, when gently struck, *(tintement metallique,)* was distinctly heard in a space corresponding to the posterior convexities of the sixth, seventh, and eighth ribs. This sound was not produced either by inspiration or speaking. Succussion did not produce the sound of fluctuation, although the patient said he felt water dashing against his side. In the superior part of the same side of the chest, (the right,) the dilatation was scarcely, if at all perceptible. The sound, on percussion, not particularly sonorous, and the respiratory murmur audible posteriorly.

"At the left side, the sound on percussion was natural, though considerably duller than at the right. Respiration was distinctly audible all over the lung's surface, except in the space corresponding to the superior lobe, where cavernous respiration and cough, with perfect pectoriloquy, were heard distinctly.

"*Diagnosis.*—A tubercular cavity occupies the upper lobe of the left lung. The dilatation of the right side of the chest is produced by pneumothorax, and the co-existence of the *tintement metallique* proves that the air in the pleura proceeds from a communication between the bronchia and pleura. The medium of communication in this case I conceive to be a tubercular cavity; first, because such is by far the most frequent mode of communication between those parts; and secondly, because the existence of a tubercular cavity in the opposite lung, converts the probability of this species of abscess into a moral certainty, of which no doubt could have existed, if the patient had been examined with the stethoscope, and pectoriloquy found under the right clavicle, before the accession of the pneumothorax. I attribute the comparatively dull sound on percussion, of the superior part of the thorax, and its less degree of dilatation, to the existence of ancient adhesions, which prevent the air accumulating in that region, between the pleura costalis and pulmonalis.

"To recapitulate.—The lesions I expect to find are, a tubercular cavity in the upper lobe of the left lung; the right side of the thorax distended with air and fluid, (the latter at present exists in small quantity, but its proportion will no doubt go on increasing;) in the right lung a tubercular cavity, communicating with the sac of the pleura on the one hand, and with the bronchia on the other, allowing the air inspired to pass freely into the pleura; and finally, the superior lobe united by old adhesions to its corresponding costal pleura.

"This detailed diagnosis was written and handed over to Dr. Cheyne on the evening of my first visit.

"*March 26th.*—Had no sleep last night; face expressive of considerable suffering; a bluish tint of lips and nails is perceptible. Says he feels no pain whatever. Cough peculiarly deep and hollow; slight mucous expectoration. At the right side, sound on percussion continues hollow inferiorly, even over the region usually occupied by the liver, where a full inspiration sounds precisely like blowing into an empty bottle, *(bourdonnement amphorique.)* Speaking as well as coughing, is now followed by the *tintement metallique.* In the superior part of the thorax, the sound on percussion is clear and hollow anteriorly, where also the respiratory murmur is extinct. *Quantity of gaseous effusion increases.*

"*28th.*—Does not recollect any sudden aggravation of his symptoms about

the period when his breathing became materially affected. Never suffered much pain of right side; thinks, on the whole, that the other side now gives him, and has, for the last three months, uniformly given him the greater uneasiness of the two. Sits up, and walks about. Pulse 120; respirations 36. No change in the stethoscopic sounds.

"*April 1st.*—Pain of left side removed by the application of a blister; dyspnœa increased; number of respirations 38; diarrhœa; profuse night sweats. At the right side, sound on percussion is become dull posteriorly in the space corresponding to the inferior portion of the thoracic cavity, where no sound whatever can be heard. *Fluid accumulates.* Above the eighth rib, the sound on percussion is hollow; the ordinary inspirations sound like blowing into a bottle. Expiration is followed by a musical sound, resembling the vibrations of a fine wire chord. Coughing produces a peculiar sound, exactly similar to the ringing of a porcelain jar; the voice much more obscurely so. On making the patient sit up in bed, and shaking him gently by the shoulder, (the stethoscope being applied posteriorly about the convexity of the seventh rib,) a fluid is clearly heard dashing against the sides of the thorax. The patient is sensible of this fluctuation, says *he* hears it, though *I* could not without applying my ear. When he suddenly rises from the recumbent posture, three or four drops are heard to fall successively from above on the surface of a fluid. This sound also is most distinctly heard over the seventh rib posteriorly. In the left lung, pectoriloquy, &c. as before. Feels no pain whatever in right side. I, in consequence, added to my former diagnosis, that the constant absence of pain probably proceeded from a thick coating of albuminous exudation, the product of chronic inflammation, which lines the pleura, and defends it from the contact of the air."

The symptoms gradually became aggravated, and on the fourteenth there were "profuse night sweats; colliquative diarrhœa; stools consisting of a black matter, resembling coffee-grounds; great prostration of strength; increase of dyspnœa, though it never became extreme up to the time of his death, which occurred on the afternoon of this day.

"*Dissection, forty hours after death.*—External appearances. Body well proportioned; considerable emaciation; legs and feet slightly œdematous; the right side appeared considerably more dilated than the left, but on measuring with a tape, the greatest difference was found not to exceed one inch and a half.

"On employing succussion, fluctuation was heard by applying the ear to the chest, but was not audible to the bystanders.

"Thorax. The right side.—A trocar was introduced between the fifth and sixth ribs near their junction with their cartilages—an immediate rush of air followed." On removing the sternum, a vast unoccupied space was observed in the anterior part of the thorax, capable of containing fully two quarts of water. This space had been occupied by air; which may consequently be estimated at that quantity. The lung just appeared above the surface of the fluid, which occupied the posterior region of the thorax; it was closely compressed against the spine, and seemed reduced to one-third of its natural dimensions. The fluid effused might be in quantity about two quarts, was of a yellowish-green colour, tolerably clear at its surface, but rendered turbid at bottom by numerous fragments of opaque, puriform flocculi of albumen.

"Before touching the lung, in order to guard against an accidental formation of the opening which I expected to find, an incision was made into the trachea, and the pipe of a pair of bellows introduced. The air passed freely through the lung, and appeared in bubbles at the surface of the fluid, in which it was immersed. The fluid being removed, the upper lobe of the lung was found in close contact with, and firmly attached to the costal pleura. The whole surface of the lung, except where it was attached, was coated with an albuminous exudation of a dirty white colour, of several lines thickness, its suface wrinkled, not unlike the rind of a shrivelled apple. The costal, mediastinal, and diaphragmatic pleuræ were still more thickly coated with this exudation, which,

though firmly attached to the subjacent pleura, and apparently incorporated with it, might by careful dissection, be separated from it, leaving the membrane underneath in a state of perfect integrity. The lung was now detached; on its anterior surface, about two inches from the summit of the upper lobe, was discovered a fistulous orifice, capable of receiving my little finger, its margin well defined, rounded, and nearly cartilaginous. A probe introduced passed readily through a series of small tubercular cavities into one of the principal bronchia. At intervals of half an inch below this fistulous orifice existed three small oval superficial ulcers, which, on close examination, did not appear to communicate with the bronchia. They were evidently formed by softened tubercles, developed immediately under the pleura; for on different parts of the lung's surface there were several similar oval nests of tubercles, some not yet softened, others quite soft, and elevating the pleura, through which they had not as yet formed a passage. Posteriorly near the root of the lung, and about the base of the superior lobe, immediately underneath its adhesion to the pleura, was another fistulous opening, of half an inch in diameter, which communicated by a long sinuous passage with a large tubercular abscess occupying nearly the whole upper lobe. This passage was lined all through by a higly vascular membrane, exactly similar to that which lined the tubercular abscess, having its surface coated with a layer of lymph. Into this vast abscess was also traced one of the principal bronchial divisions; its entry into the cavity was within a few lines of that of the sinuous passage above described. The middle and lower lobes contained several tubercles. The bronchial glands also were much enlarged, and studded with tubercles.

"The left side of chest.—This lung was studded throughout with granular tubercles of the size of duck-shot. In the superior lobe was found one cavity, capable of containing a large filbert, and communicating with two or three smaller ones. In the middle lobe, (the left lung had three lobes,) the tubercles were all opaque and whitish. In the inferior many of them were in the first, or greyish, semi-transparent stage.

"The heart was small, flaccid, and pale.

"*Abdomen.*—All the viscera occupied their natural situations, except the liver, the inferior margin of which nearly touched the crest of the ilium. Mesenteric glands much enlarged, some of them studded with tubercles. Stomach much distended with flatus; its mucous membrane reduced to a pulpy mass, and easily scraped off with the scalpel. The ileum was considerably ulcerated near its entry into the cæcum, which, as well as the colon, presented several patches of ulceration, and contained a large quantity of the coffee-grounds matter, similar to what had been evacuated. This matter was first met with in the cæcum, as the ilium seemed perfectly free from it. Liver appeared healthy.

"This case of pleurisy with pneumothorax, differs from any other that I have seen recorded, in the total absence of pain in the side affected, in not having its commencement marked by any violent or sudden symptoms of dyspnœa or pain, and also in this, that the patient was able almost to the time of his death to dress himself and sit up; whereas M. Laennec expressly states, that in all the cases which he had seen, the patients were excessively oppressed, and unable to quit their beds. Indeed he lays down these circumstances, as adjuvant diagnostic marks, whereby to distinguish this disease from emphysema. But in this instance such minor distinguishing features were not necessary. The great distention of the right side of chest, its remarkable sonoriety, the total absence of respiration, unless where the lung was attached, the extraordinary development of the pathognomonic signs, all established, beyond the possibility of doubt, the precise nature of the disease. I shall only add, that the dull sound supervening inferiorly, and gradually ascending, the increasing capacity and sonoriety of the superior part of the thorax, together with the increased extent of surface over which the pathognomonic sounds were heard, did all, and each of them, mark exactly the progress of the disease from day to day, up to the period of its fatal termination.

"I know that it has been often urged, as an objection to the use of the stethoscope, that it is impossible to convey, by description, an accurate idea of sounds; and that for this reason none but those persons who have studied under the author of mediate auscultation, can be sure that they refer each sound to its proper denomination. I can only reply to this objection by stating, that although, during my attendance on the wards of M. Laennec, I never had an opportunity of studying these sounds, the *tintement metallique* and *bourdonnement amphorique*, yet so precisely did they answer his description, that I felt not the least difficulty in recognizing them; and so perfectly was I convinced of their identity, that I hesitated not, on the evidence of sounds I had never before heard, to pronounce on the existence of a morbid lesion I had never previously seen, and I appeal to the result, if my confidence was not justified."

MATERIA MEDICA.

31. *Hydrocyanic Acid.*—Dr. Ryan states that he has used this medicine in numerous cases of severe pulmonary disease, in functional and organic diseases of the heart, and in violent cases of asthma, dyspnœa, and orthopnœa, with the most marked advantage.—*Transactions of the College of Physician in Ireland, Vol. V.*

32. *Artemesia Vulgaris in Chorea.*—The artemisia vulgaris, which was first recommended by Dr. Burdach for the cure of epilepsy, is stated by Dr. Gittermann to be very efficacious in other nervous diseases. He relates a case of very obstinate chorea St. Viti, which was cured by it after flores zinci. together with rad. valerianæ, and cuprum sulphurico-ammoniatum had been a long time used in vain.—*Hufeland and Osann's Journal der pract. Heilkunde, January*, 1826.

33. *Radix Caincæ.*—The materia medica has received a new and very valuable acquisition in the radix caincæ—stated to be an effective remedy for dropsy. In a treatise by Von Langsdorf, on the use of the radix caincæ, he says, the root of this plant is known in the province of Minas Geraes, in Brazil, as a very efficient remedy. It acts as a drastic and tonic purge, a good diuretic, and a most effective emmenagogue. The vomitings, which frequently take place, are not to be ascribed to any emetic power which it may possess, but to its bad, volatile, and disgusting smell and taste. It has been found successful as a means to strengthen over-excited nerves, and has been useful in hysteric attacks. But the principal effect of this root is, that it is an effectual remedy for dropsy. It is taken, after having been infused in boiling water, in the following form: ℞. Rad. caincæ conc. ʒij. coq. c. aq. comm. libr. una. ad consist. ℥viij. s. bis, ter, quaterve in die cochlearia duo magna sumenda.

It appears hence, that this remedy belongs to the class of those antihydropics which carry the water off, like gummi guttæ, elaterium, colocynth, bryonia, &c. by means of resinous drastic constituents, by which stools, as well as an increased secretion of urine, are promoted. Dr. Vogel, of Rostock, has communicated a case in which it has been eminently successful.—*Ibid.*

34. *Oil of the Euphorbia Lathyris.*—Calderini recommends the oil expressed from the seeds of the euphorbia lathyris as a purgative. According to his experience, it has the following properties: "1. It acts safely and purges gently, and produces at the same time by no means an injurious effect, neither vomiting nor any disagreeable feelings in the stomach, nor tenesmus, and can be taken even when the intestines are highly irritated. 2. With regard to the strength of its operation, it differs but little from the croton oil. 3. The dose for adults is, according to their constitutions, from four to eight drops; for children, from

two to three drops; for very sensitive patients, in form of an emulsion. 4. As it possesses neither a very strong taste nor smell, it may be easily taken by patients who otherwise have a great aversion to medicine.—*Ibid.*

35. *New Preparation of Opium.*—Joseph Houlton, Esq. has been lately employing a preparation of opium, the action of which as a sedative, has been so highly satisfactory as to lead him to believe it will be found to possess the same, if not superior, medicinal powers to the black drop. He calls it *liquor opii acetatis.* The following is his formula for its preparation. Take of Beaufoy's strong acid, f℥j. distilled water, f℥ix. opium, ℥ijss. Macerate with a gentle heat for five days, and strain. Five minims are equal to one grain of opium.—*Lond. Med. Repos. and Rev. May*, 1828.

PRACTICE OF MEDICINE.

36. *Treatment of the Peripneumonia of Children.* By Thomas Cuming, M. D. —The indications of cure in this disease, according to Dr. Cuming, are threefold; 1st, to arrest inflammation before effusion takes place; 2d, where effusion has taken place to prevent its increase; 3d, to promote its absorption or expectoration.

"To accomplish the first indication," says Dr. C. "the most powerful remedy we possess is blood-letting; and, provided the disease be seen at its very commencement, we may not unfrequently extinguish it in its birth. In this early stage the breathing is loud and distinctly audible; it is not wheezing, the former arising from the straitening of the air-passages, occasioned by the turgid state of their mucous membrane. It rarely, however, happens that our assistance is required before a certain degree of effusion has taken place, as is evinced by the wheezing of the respiration. We can seldom, therefore, expect to conduct the disease to a favourable termination, except through the medium of a free expectoration." When effusion has taken place, provided it be not in excess, Dr. C. considers it as a favourable symptom. He very justly remarks, that it is a great mistake to suppose that children do not bear bleeding well, or that the diseases to which they are liable do not require it. The earlier blood-letting is performed the less occasion in general will there be for its repetition. The quantity of blood to be drawn, and the necessity for its repetition, must be determined by the age and constitution of the patient, the violence of the symptoms, &c. In an infant under six months, though general blood-letting may often be required, Dr. C. says that the application of leeches to the back of the hand or foot will, for the most part, answer the purpose, where a vein, which is frequently the case, cannot be found. He thinks it better to apply the leeches to the hand or foot than to the thorax, as the bleeding is easily stopped by placing compresses of lint over the bites, and securing as after the operation of venesection. When blood cannot be procured from a vein in the arm it may usually be obtained from one on the back of the hand, or if we fail there, from the jugular. When blood-letting is carried too far, a state of nervous agitation and general commotion is sometimes induced, which, if not speedily removed, may terminate in death. The best remedies in these circumstances, are a horizontal position, cool air, and a drop or two of the tincture of opium. Though indispensable in the beginning of this disease, blood-letting cannot be practised with safety, Dr. C. thinks, after an abundant effusion has taken place in the bronchia. Where venesection might appear hazardous, we may sometimes have recourse to local blood-letting with benefit. Still however, if the debility is very great, even topical depletion may be attended with danger: and we must then place our reliance on blisters, and the other remedies presently to be mentioned; but Dr. C. remarks, if the disease

has been uninfluenced by treatment in its first stage, little else will remain for the practitioner than to witness its resistless march to a fatal termination in the second.

As auxiliary to blood-letting, the best effect is often obtained from other evacuants, particularly purgatives and emetics. It is in the early stage of the disease, previous to the occurrence of much effusion, that purgatives will be found most serviceable. When the inflammation of the lungs is combined with disease in the abdominal viscera, as, for instance, hepatic disease, purgatives are of eminent utility, particularly mercurial ones. When the bronchiæ are oppressed with effusion, and the powers of the system much sunk, Dr. C. thinks that purgatives cannot be persisted in with safety. The purgative usually employed by Dr. C. is a combination of calomel and jalap, and when the bowels have been well opened by it, he keeps up their action by administering a grain of ipecacuanha with one of calomel every two, three, or four hours. This combination not unfrequently excites vomiting as well as catharsis; and when this effect is produced, it is generally of service to the patient.

When the lungs are much oppressed, Dr. C. says that he has often observed the greatest relief to follow the administration of an emetic. He employs the tartar emetic; and he says he has never seen any ill effects follow its exhibition.

"The preceding remedies having been used, a blister," says Dr. C. "should be applied to the chest, or between the shoulders; and when both chest and shoulders had been blistered, I have known good effects to follow the application of a blister to either side. In applying blisters to infants we must take particular care not to allow them to remain on for more than three or four hours. When a blister is applied for a longer period, excessive general irritation is apt to be induced; and such is the delicacy of the infant skin, that the blistered parts not unfrequently become gangrenous. Under such circumstances the death of the child has been sometimes the consequence. Though vesications may not have formed at the time the blister is removed, they generally take place after the application of the dressing. In some habits the blistered surface takes on an unhealthy action, and runs into eating and irritable ulcers, which are long in healing. In such cases I have found an emollient poultice, when the inflammation is considerable, and afterwards the black and yellow washes, the most useful applications. In infants of an irritable habit it will sometimes be advisable to dilute the blistering plaster with an equal quantity of the emplastrum ceræ. My friend and colleague, Dr. Charles Johnson, who has had much experience in the diseases of children, considers this combination preferable in many instances to the emplastrum cantharides of the pharmacopœia.

"In the advanced stage of the disease, when the debility is great, and suffocation appears to be impending, our principal reliance must be placed upon the administration of stimulants. Of these, perhaps, the best is the carbonate of ammonia, which may be given in the dose of three or four grains every third or fourth hour, according to circumstances. The decoction of seneka will form a suitable vehicle for the ammonia, and from the expectorant quality which it seems to possess, it may probably enhance the efficacy of the latter. When the prostration is extreme, wine and other cordials may be had recourse to; but in general these, as well as the carbonate of ammonia, will prove of little avail, suffocation taking place before the system has recovered strength sufficient for the expulsion of the fluid from the bronchia."—*Transactions of the Dublin College, Vol. V.*

—

37. *Hydro-sulphuric Acid in Metallic Colic.*—MM. Chevalier and Rayer have given the hydro-sulphuric acid in several cases of saturnine colic, also in a case of colic occurring in a person employed in the manufacture of pro-cloruret of mercury, and with decided advantage.—*Bulletin des Sciences Médicales, December*, 1827.

38. *Recovery from Drowning.*—M. Bourgeois had occasion to give assistance in a case, where after a person had been twenty minutes under water, he was taken out, and, by a very common but serious mistake, carried with his head downwards. The usual means were tried unremittingly, but unsuccessfully, for a whole hour, but at the end of that time a little blood flowed from a vein that had been opened, and a ligature being placed on the arm, ten ounces of blood were withdrawn: the circulation and respiration were then gradually re-established, horrible convulsions, and a frightful state of tetanus coming on at the same time; copious bleeding was again effected, after which a propensity to sleep came on: a third bleeding the following morning was followed by the recovery of the patient. Hence M. B. concludes that the means of recovering a drowned person should never be abandoned until the decomposition of the body has commenced.—*Edinburgh New Philos. Journ. from the Bull. Univ. C. XI.* 213.

—

39. *Ammoniacal Sulphate of Copper in Epilepsy.*—Dr. Urban, of Bernstadt, recommends the ammoniacal sulphate of copper in epilepsy, when purely nervous. He relates five cases in which its employment has been entirely successful. The first was that of a young man, in whom the fits were renewed every fortnight, unaccompanied with any other affection, excepting a spitting of blood, which was combated in the first place with bleeding and other antiphlogistic means. The attacks of epilepsy afterwards persisting with their former violence, Dr. Urban prescribed eight grains of the ammoniacal sulphate of copper, to be mixed with twenty-four grains of sugar, and twenty-four grains of crumb of bread, and formed into forty-eight pills, of which the patient took three morning and evening, increasing the dose by one pill every two days. The young man had only five fits from this period, each at a longer interval than the preceding, and he has now remained well two years.

In the second case, the epilepsy was produced by the sudden intelligence of the woman's husband having been assassinated, and the medicine was given in rather smaller doses, and in the form of powders. The first six powders, however, produced nausea and vomiting, and it became necessary to omit them for a day. They were afterwards resumed in the same dose, which was at length increased to the amount of one grain of the salt in the day. It is to be remarked, that in this case the attacks were not diminished in frequency for some time, but they soon became of shorter duration and less violence. She finally recovered, after having taken twenty-six grains of the salt altogether.—*Hufeland's Journal.*

—

40. *Case of extreme Difficulty of Respiration Successfully Treated by Hydrocyanic Acid.* By Michael Ryan, M. D.—Mrs. C. æt. 23, was suddenly seized, in consequence of exposure to the night air, with pain in her chest and extreme difficulty of breathing, so urgent as to threaten almost instant suffocation. She was bled to eight ounces without relief. The next day, September 26th, 1825, Dr. Ryan was called to see her. He found her sitting up in bed, her breathing very laborious, with inspirations long, expirations short, terminated by moans; face pale; lips livid; features relaxed; eyes glassy; no pulse could be felt at the wrist; heart's action feeble and indistinct; hands and feet covered with a cold, clammy perspiration; speech and intellect unaffected. From repeated trials of hydrocyanic acid, Dr. R. felt convinced that it was a most efficacious remedy in relieving difficult respiration and oppressed circulation, and that therefore it was peculiarly adapted to the present case, and as the symptoms were so extremely urgent, he determined to push the use of the acid until it produced most sensible effects. Accordingly, six minims of the acid, as prepared by Scheele, were mixed in two ounces of distilled water, with one drachm of compound spirit of lavender. Of this she was to take half an ounce every ten minutes, until breathing was in some manner affected. If relief was obtained by the first, second, or third dose, the medicine was ordered to be repeated not oftener than every half hour, and to be discontinued altogether, and a little

brandy substituted, if sudden weakness, head-ache, or fainting should supervene. 4 P. M. Breathing much easier, and the patient altogether wonderfully relieved: complains of some debility. 6 P. M. Not so well; complains much more of weakness. Brandy in small quantities during the next hour. 7 P. M. Pulse very weak, small, and frequent. Says she experienced the greatest relief from the mixture, which is all taken; but the shortness of the breathing has been increasing for the last two hours, and is now as violent as at two P. M. Her countenance expresses extreme anxiety. On the whole, her case seems perfectly hopeless. Ordered eight minims of the acid with two grains of tartar emetic, in two ounces of distilled water; half an ounce to be taken as before directed.

27th, 8 *o'clock* A. M.—Took four doses of the medicine between twenty minutes past eight and nine o'clock, last night, when considerable ease was obtained. The last dose was taken at ten, soon after which her body recovered its natural temperature; sleep also supervened, and continued till this morning. At present, countenance natural; breathing easy; no pain in any part of chest; pulse one hundred, stronger and fuller. The mixture has acted on her stomach and bowels, though she had previously taken two ounces of castor oil without effect. She wishes for broth, and considers herself well. The enormous dose of fourteen drops of the acid, was thus taken, in eight hours, with advantage.—*Transactions of the College of Physicians in Ireland, Vol. V.*

—

41. *Hemiplegia cured by the Alcoholic extract of Nux Vomica.*—Rosa Baffoe, æt. fifty-six, experienced fifteen years before, during her pregnancy, an apoplectic attack, of which she had been cured, a slight impediment in her speech only remaining. In August, 1824, she had another and more violent attack. Dr. Chiavelli employed for some time an antiphlogistic and revulsive treatment, as general and local bleedings, purgatives, &c. under which the symptoms menacing cerebral congestion disappeared, but an incomplete paralysis of the left side remained. The arm was completely paralysed, but the leg could perform some movements. M. C. then proposed trying the strychnine, which is considered by M. Magendie as possessing a peculiar influence on the spinal marrow. On account of the debilitated state of the patient, M. C. was unwilling to employ the pure strychnine, and only ventured on the alcoholic extract of nux vomica, which was at first given in doses of half a grain, and subsequently increased to one and two grains, morning and evening. The remedy was continued during five days, when is produced considerable excitement and disturbance in the system, which were removed by bleeding, diet, &c. and the patient recovered the use of her limbs.—*Journal des Progrès, Vol. VII, from the Giorn. Critic. di Med. Anal. Milano, Sept.* 1827.

—

42. *On the use of Emetics of Ipecacuanha in Menorrhagia.* By Jonathan Osborne, M. B. of Dublin.—In a paper on the use of emetics in hæmorrhage, by Professor Chapman, in our last number, a striking instance was related, illustrative of the utility of this class of medicines in menorrhagia. The *Fifth Volume of the Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland*, contains further evidence to the same effect, by Dr. Osborne. This is an interesting coincidence: the transactions of the Irish college has been received since the publication of our last number, and the French Journal has never, we believe, reached this country; moreover, Professor Chapman has for several years, in his lectures, taught the value of emetics in menorrhagia. Dr. O. says that his attention was first excited by an article in the sixty-ninth volume of the *Journal Général de Médecine*, in which M. Caffin describes cases in which emetics of ipecacuanha were followed by the immediate disappearance of the discharge. Having witnessed a case which resisted the usual remedies, Dr. O. determined to submit this practice to the test of experience.

He began the use of ipecacuanha by ordering a scruple to be taken as an

emetic at night, and generally directed an acidulous saline purgative in the morning. The effect produced exceeded his most sanguine expectations. The discharge either ceased within twenty-four hours, or was so much diminished that no more remedies were necessary to insure its entire removal. In some few cases it recurred within a short time, but when this did happen it was only necessary to repeat the emetic once or twice, in order to produce a permanent effect. He says that he met with a few individuals in whom the discharge continued with little alteration after the first emetic, but with these he had only to repeat the remedy on the following night; and in one case alone three emetics were taken before the desired effect was produced. It acts, he adds, "no less in menorrhagia, accompanied by high excitement and full pulse, than in states of great exhaustion; and its general operation is so mild as to present no obstacle to its use, even in cases of the greatest prostration of strength.

—

43. *On the treatment of Intermittent Fever by the Application of Sulphate of Kina to the Skin.*—"Doubts have been justly entertained whether the skin is capable of absorbing substances applied to it, unless the cuticle is previously abraded, or the substance is thrust through the cuticle by friction. It is agreed on all hands, however, that the surface of the true skin, stripped of its protecting cuticle, absorbs with rapidity; and our readers are probably aware that advantage has been lately taken of this physiological fact in order to introduce into the system medicines which cannot be administered in sufficient quantity internally. M. Lesieur of Paris seems to have been the first who suggested the method now alluded to, and it has been since applied by himself and others to the administration of various active remedies. The paper of which a short analysis follows, is descriptive of the mode of treating intermittent fever by sulphate of kina administered in this way; and certainly the success and advantages held out by the author, M. de Martin, are very flattering. He states, that when the sulphate of kina is applied in a convenient form to a freshly blistered surface, it never, even when used in small quantities, fails to check the disease at once. In a state of purity it is ineligible, as it very soon irritates and inflames the surface of the true skin which is exposed to it, exciting livid redness, causing the formation of a gelatinous pseudo-membrane, and even destroying here and there the vitality of the surface of the skin, so as to produce small superficial sloughs. But when it is mixed in a state of fine powder with cerate, no such effects are produced, and in a short time it all disappears. The advantages of introducing the remedy through this channel are, first, that it can be safely and efficaciously used when owing to irritation or congestion in the alimentary canal it is either unsafe to administer it internally, or useless, on account of its being rapidly discharged by vomiting or purging; secondly, that a less dose acts with equal power; thirdly, that it acts more rapidly as the system is sooner brought under its influence; and lastly, that it can easily be administered to those who are averse to take internal remedies, and more particularly to refractory children.—The circumstances connected with the action of kina through the skin illustrate well its mode of operation. M. de Martin remarks, that it cannot act by effecting a revulsion, or as a counter-irritant, because local irritation is not only not necessary to success, but even also prejudicial; for he has invariably found that the remedy was least certain in its effects, and that the largest doses were required when inflammation was excited. This is easily explained on the principle that it acts through absorption; for the gelatinous effusion which is thrown out in the cases in which inflammation is caused obstructs its access to the absorbing surface. In point of fact, a great part of the powder always disappears when inflammation is not produced. The following cases will serve as examples of the author's plan of treatment. *Case VI.* A stout man, thirty-five years of age, had been affected for three months with a quartan ague, which had been checked four times by various preparations of cinchona. In the fifth attack, M. de Martin found him at the commencement of the fit with a frequent, strong, hard pulse, intense heat, flushed countenance, frequent strong cough, mucous expec-

toration, short breathing, pain under the left nipple, and a dry, red tongue. On account of the pulmonic affection, sixteen ounces of blood were taken from the arm. The fit returned again three days afterwards. Next morning, a blister having been applied three days before, and the part continuing to present a fresh surface, six grains of sulphate of kina were mixed with the cerate with which it was dressed, and twenty-four hours afterwards the dressing was changed, and six grains more applied in the same manner. He had not any return of the fit, and from that time improved rapidly in general health. The blistered surface was not in the slightest degree irritated. *Case V.* A woman twenty-three years of age, long liable to pulmonary catarrh, and affected for a year previous with wandering pains in the chest, oppression there, and dry cough, was attacked towards the end of November, 1826, with quotidian ague, of which she was cured by the internal exhibition of sulphate of kina. Towards the close of December the disease returned, still in the quotidian form. During the fit the heat was intense, the pulse strong and frequent, the general oppression considerable, the breathing difficult, and interrupted by paroxysms of violent cough. She was bled to eight ounces during the second paroxysm. On the morning of the third day, four grains of sulphate of kina, mixed with cerate, were applied to an old blistered surface. The paroxysm never returned. The dressing was renewed every twenty-four hours for four days. The cough and difficulty in breathing continued after the ague had long ceased. The blistered part became somewhat red at first, and a thin pseudo-membrane was formed; but the irritation, slight from the beginning, gradually diminished, and at length disappeared before the fourth dressing. *Case II.* This case exemplifies the kind of local inflammation which is caused by the remedy when not mingled with unctuous substances, as well as the effect of the inflammation in preventing its being absorbed. A soldier had suffered in the course of five months repeated attacks of tertian intermittent, and came under M. de Martin's care after the third paroxysm of a relapse. On the morning of the day on which he expected another, six grains of powdered sulphate of kina were sprinkled on a freshly blistered surface. The paroxysm appeared soon afterwards. Next morning the blistered surface had a deep red colour, was covered with a gelatinous exudation, and likewise showed here and there little yellow spots, which consisted of particles of kina covering little depressions in the cutis vera. Six grains of sulphate of kina were again applied, however. But now the pain became so intense, and the surface so red, that it was necessary to remove the powder, and apply a poultice. On the third morning the blistered part was covered with a thick, livid, moist eschar, having red edges, from which serum was discharged. The paroxysm reappeared this day, and again on the third, fifth, seventh, and ninth days afterwards. During this period the eschar became first black and dry, then round the edge soft and yellowish; and this softening extended inwards in the way usual with superficial eschars of the skin. After the sixth paroxysm the sulphate of kina was given internally, with the effect of checking the disease at once."—*Edinburgh Medical and Surgical Journal, April*, 1828, *from the Revue Médicale, Sept.* 1827.

—

44. *On the Use of Tannin as a remedy for Menorrhagia.*—Dr. Porta has employed the tannin in the treatment of menorrhagia, for three years with great success, it having failed only twice during that period. "The general results he has been led to by his practical experience are, that tannin has a special action on the uterus when the hæmorrhage is active, whether it arises from chronic or acute metritis, but that in the latter case the inflammation must be previously combated by repeated copious blood-letting; that it is not of any use in hæmorrhage connected with organic disease of the uterus; and that its action is very rapid, while the quantity required to effect a cure is so small as to be easily borne on the stomach. He has published several of the cases which have led him to these conclusions. The following is an abstract of a few of them. *Case I.* A woman of middle age, and of a bilious, irritable temperament, after

recovering from a severe attack of miliary fever, was attacked during convalescence with considerable uterine hæmorrhage. Conceiving at first that it was nothing more than a premature appearance of the catamenia, she for some time paid little attention to it; but after it had continued several weeks, and had greatly reduced her strength, she became alarmed, and consulted Dr. Porta. He ordered her to take two grains of tannin every two hours, and in two days the hæmorrhage ceased altogether. *Case II.* A woman, thirty-two years of age, of delicate habit, and nursing a child four months old, was seized with uterine hæmorrhage, which, like the former patient, she at first imagined to be the catamenial discharge. As it continued, however, much longer than usual, and was rapidly enfeebling her, she had recourse to Dr. Porta, who found that she had been twenty days ill, and that she was affected with lumbar pains, some swelling and tenderness of the hypogastrium and symptomatic fever. He directed her to take a pill containing three grains of tannin every third hour; and she took only eight of them when the hæmorrhage entirely ceased. *Case III.* A woman of irritable, sanguine temperament, and thirty-eight years of age, had been affected for three weeks with menorrhagia, when Dr. Porta was called to visit her. He found that pressure on the hypogastrium excited pain there, shooting towards the loins, that the pulse was hurried, and that she was liable to sudden paroxysms of pyrexia. As there was not, however, any notable swelling in the hypogastrium, he ordered the tannin without any preliminary treatment, and the same quantity was given as in the last case. In the course of two days about two scruples were taken, upon which the hæmorrhage was permanently checked. *Case IV.* A young woman of robust habit was attacked with profuse hæmorrhage from the uterus, by which in the course of a few weeks she was reduced to a state of great exhaustion. Notwithstanding her state, and the large quantity of blood she had lost, the pulse was frequent and full, and the hypogastrium was tumid and tender. Dr. Porta immediately ordered her to cease taking wine and tonic drinks, which had been given her up to that time, and directed three grains of tannin to be administered every third hour. Towards the close of the fourth day the hæmorrhage ceased. The lumbar pains which usually accompany the disease, continued a few days longer."—*Annali Universali de Medicina, April*, 1827.

—

45. *Carbonate of Soda in Goitre.*—Hufeland mentions that the effect of the carbonate of soda in diminishing goitre is completely confirmed. A young lady who had suffered for many years from swelling of the glands of the throat, which had latterly increased, and was not only disagreeable from its appearance, but impeded also her voice and breathing, has taken, since three weeks, a solution of carb. sodæ, ʒij. solve in aq. melissæ, ℥vj. syrup cinam. ℥ss. s. daily, four times, a table-spoonful, and the swollen glands are now of but half their former size. He says he shall certainly never order again the iodine to be taken internally, nor even the burnt sponge, as the application of the latter, even, is always precarious with persons who are disposed to phthisis and spitting of blood.—*Hufeland and Osann's Journal der pract. Heilkunde, February*, 1828.

—

46. *Cremor Tartar in Gravel.*—Dr. Woehler illustrates the beneficial effect of the cremor tartar in those disposed to gravel, adducing two cases from Chelius and Gmelin, in which the gravel, consisting of uric acid, was removed by its use. At the same time, he mentions from his own practice, the case of a man who seemed to suffer from stone in the kidneys, and constantly passed urine consisting of uric acid. In this case he also resorted to cremor tartar, upon which the urine became clear, containing no gravel; at the same time the patient discharged a rough stone from the kidney, consisting of uric acid.—*Ibid, Jan.* 1827.

—

47. *Extract of Fern as a cure for Tape Worm.*—According to letters from Switzerland, the extract of the rad. filicis maris, made with ether, recommend-

ed by PESHIER, is frequently used, and with the greatest success, as a remedy against the tape-worm.—*Ibid.*

48. *On the Treatment of Burns by* Dr. HEINE.—After severe burns, especially those of the feet, the injured parts in successively drying, acquire a coriacious hardness, in consequence of which the subjacent parts are contracted and compressed, producing excessive pain. Emollient applications are useless in such cases. Dr. Heine recommends as the only effectual means of affording relief, removing with a bistoury the whole of the coriaceous part. The contracted parts then assume their natural situation, suppuration occurs, and the wound heals. The delicate and sensible skin which covers the injured place, is remarkably disposed to inflame and break out in small ulcers, from the slightest irritation, and the whole limb is subject to swell. To prevent these occurrences Dr. H. encircles the foot and leg with a bandage, which he continues for a considerable time.—*Rust's Magazin, Vol. XXIV.* 1827.

49. *Artemesia Vulgaris, in Epilepsy.*—For several years many experiments have been tried in Germany, which appear to prove the anti-epileptic powers of the Artemesia vulgaris. By many authors its virtues have been much extolled: Dr. Burdach and Professor Hufeland, have used it, gathered in October, and reduced to powder, with much success in many cases of epilepsy. The dose is from fifty to seventy grains. It has been generally given in warm small-beer. A copious perspiration mostly follows, and a few doses have frequently succeeded in effecting a cure. The cases in which the Artemesia has been most beneficial, have been those in which the paroxysms of the disease occurred frequently and periodically. Very satisfactory evidence is adduced upon this subject by E. Graefe, who speaks confidently of the anti-epileptic powers of this medicine. According to the latter authority, it has been used with equal success in cases of catalepsy, but requires to be continued for a longer time than in epilepsy. Neither the infusion nor the decoction of the root can be depended upon. In one case of epilepsy recorded by Graefe, the patient had been afflicted with the disease for several years. He took two ounces of the powdered Artemesia, in divided doses. The violence of the paroxysms gradually subsided, and in one month from the first employment of the remedy they entirely ceased. In the second case of a cataleptic woman, it was equally successful, after various other means had been employed in vain. This patient took altogether four ounces of the powder.—*Hufeland and Osann's Journal.*

50. *Juice of the Hemlock in Itch.*—Dr. PELLEGRINI has found the external application of the hemlock juice highly efficacious in curing the itch; the pustules are to be bathed with it for five or six days. Dr. P. employs the juice expressed from the fresh leaves, but he says that the extract, decoction, or powder of the leaves is equally efficacious, and that he never failed in effecting a cure.—*Lond. Med. Gaz. Vol. I. No.* 6.

51. *Treatment of Erysipelas.*—The English surgeons appear to have become convinced of the utility of topical depletion in the treatment of phlegmonous erysipelas, but much difference of opinion exists among them with respect to the best mode of effecting this. Mr. Lawrence, Mr. Brodie, and some others, advise extensive incisions: Mr. Hutchinson, on the contrary, and his followers, recommend short incisions; Dr. Babington punctures with the point of a lancet, and Mr. Travers detracts blood by leeches. The recent Journals contain cases successfully treated by each of these methods. It is objected to the long incisions that they are dangerous, and two cases are related in which fatal hæmorrhage resulted; in one, however, owing to the carelessness of the nurse. The advocates for long incisions, object to punctures, to small incisions, and to leeches, that they do not fulfil a very important indication; namely, the removal of ten-

sion. For the mere purpose of detracting blood, we should suppose that leeches were to be preferred, indeed we have always found them effectual, but where it is important to remove tension promptly, we should not hesitate to resort to extensive incisions, notwithstanding the clamour that has been raised against the practice, as we believe ill consequences may be guarded against. The objections to them are, we think, not sound. Fatal hæmorrhage has resulted from leech bites, and fatal salivation from a small dose of calomel given as a purge, and yet no practitioner will be willing to abandon these remedies.

—

52. *On the Treatment of Amenorrhœa and Leucorrhœa.*—"The July number of the *Revue Medicale* contains two short but instructive papers on the subject of amenorrhœa and its concomitants, particularly leucorrhœa. The author of one of them, M. Moulin, considers chiefly the form of the disease which attacks robust, plethoric females, and which is characterized by the cessation of the discharge being speedily followed by a febrile state of the pulse, and symptoms indicating a determination of blood to one or other of the great cavities, if not actual inflammation of one of the viscera. In such cases it has long been the custom to use the lancet, and M. Moulin has given some excellent examples of the efficacy of such treatment. He states that when blood was drawn on the day before that on which the flow of the catamenia, but for the suppression, would have begun, he has found it reinstated almost invariably, and sometimes the restoration took place while the blood was flowing from the arm. When leucorrhœa accompanied such cases, it ceased at once after the bleeding if the menstrual discharge was restored. M. Guibert, the author of the other paper, after a few observations, in which he concurs with M. Moulin as to the advantage and peculiar effects of blood-letting in the amenorrhœa of robust plethoric people, proceeds to notice the chief emmenagogues which he has found useful in the other variety, the amenorrhœa, namely, of females of a feeble, nervous, and lymphatic temperament. Of all the substances he has tried none have appeared to him to be so steadily successful as Venice turpentine. The form in which he uses it is that of pill, compounded of two parts of turpentine, three of Castile soap, and the necessary quantity of liquorice-root powder, each pill containing four grains, and ten being the daily dose. Even in inveterate cases he has seldom been obliged to continue the treatment above twelve days.—*Ed. Med. and Surg. Journ. Jan* 1828.

—

53. *Epilepsy cured by the Physiological Treatment.* By Dr. Tetu.—A girl, aged twelve years, of nervous temperament and of unusual intelligence, had been subject for five years to epilepsy. The attacks at first were not very frequent, once or twice a week, but at the period when she was seen by Dr. Têtu, she had four or five a day. The whole arsenal of medicine had been exhausted by the physicians who had treated her, but without affording any relief; on the contrary, she became worse and worse. When Dr. T. was consulted, he found her much emaciated, pale, her abdomen hard and distended, epigastrium tender, bowels obstinately constipated, pain in the head; she was listless, petulant; eyes haggard, pupils dilated, slight strabismus; intelligence diminished, and her memory, which had been wonderful, almost gone. Dr. T. treated her with enemata; leeches to the epigastrium, head and neck; mucilaginous drinks; rigid diet; ice to the head; sinapisms and blisters to the extremities; pediluvia, &c. By these means she was entirely cured. Dr. T. attributed the disease to the immoderate use of emetics, purgatives, and anthelmintics, and to the parents having misused the precocious intelligence of their child, whom they took great pleasure in showing as a great prodigy.—*Ann. de la Med. Phys. March*, 1828.

Two cases of epilepsy cured by antiphlogistics and revulsives, are related in the twelfth volume of the same Journal, and two others are given by Dr. Jackson in the fourteenth volume of our preceding series.

54. *Treatment of Angina Maligna.* By Dr. Bianquin.—Angina maligna has prevailed for several years as an epidemic, at Saint Ouen, arrondissement de Mortagne, in France. It commences generally with a swelling of one tonsil, sometimes both, which ulcerate in two, three, or four hours—the uvula and palatine arches are quickly affected, and all the neighbouring parts become gangrenous. There is little fever at the commencement; deglutition is not very painful, but by the third day it is impossible, liquids returning by the nose; and the patient dies on the fourth or fifth day, when the angina is violent or ill treated. It attacks in general the young, especially those between the ages of five and twenty-five years. The treatment that Dr. Bianquin has found almost always successful, when employed early enough, is bleeding from the arm several times in one day, and even repeated on the following one; emetics after two or three bleedings have been premised, are also useful. The principal remedy, however, is venesection, which Dr. B. employs to a very great extent. He has not found any advantage from leeches. He employs general remedies and counter-irritants, as external applications and gargles; stimulating pediluviæ, sinapisms, &c. Of upwards of three hundred patients treated by these means during the last four or five years, he has lost only fourteen.—*Annales de la Médecine Physiologique, March*, 1828.

—

55. *Phthisis Pulmonalis.*—Dr. Giraudy recommends that phthisical patients should be kept in an atmosphere rendered moist and warm by the vapour of water, and the temperature of which should be preserved uniform. He proposes by this mean to calm the irritation of the pulmonary mucous membrane, and he adduces some cases in support of the practice.—*Revue Médicale, October*, 1827.

—

56. *Treatment of Acute Hydrocephalus.* By Thomas Mills, M. D.—"As hydrocephalus in the first stage is accompanied by an inflammatory action of the vessels of the brain, it is clear that it demands the employment of anti-inflammatory remedies. Of these remedies the most important are, blood-letting, cathartics, antimonials, and calomel combined with opium; and these are named according to the order in which they prove most useful. We have, moreover, some auxiliary medicines of considerable value, as the tepid bath, blisters, fomentations, sudorifics, pediluvium, &c.

"In a disease of so dangerous a tendency, it is scarcely necessary to state that the loss of a day, perhaps of an hour, may be followed by fatal consequences. The temporal artery, the jugular vein, or a vein in the arm, should be opened, and the blood allowed to flow until some impression is made on the general habit, and until the morbid actions of the vascular system of the brain are modified or totally changed. That such an effect has taken place may be known by a paleness of the countenance, a shrinking of the features, and a tendency to deliquium; or by a diminution or removal of the heat, pain, weight, or uneasiness of the head. As soon as this is produced, our object for the time is accomplished, and the orifice should be closed. Immediately after, or even previous to venesection, brisk cathartics should be administered and repeated at short intervals; and these I recommend not merely from their emptying the bowels of their contents, but because they act on the exhalents of the entire alimentary canal. Thus we lower the tone of the heart and cerebral vessels, and promote a more equal distribution of the blood.

"Remissions and exacerbations daily take place in this disorder; they occur at irregular periods; most commonly the remission is observed during the morning, and the exacerbation in the evening; but at whatsoever time the exacerbation may return, let it never be forgotten that blood is again to be detracted, and active cathartics are to be again exhibited, until some impression is made on the disease. By these measures, promptly and judiciously executed, there is reason to hope that in the course of three or four days the excitement of the brain will be considerably abated, or perhaps removed.

"I have mentioned that blood may be abstracted from the temporal artery, the jugular, or from a brachial vein, but it sometimes happens that blood cannot be taken from any of these vessels; in that case our chief dependence is on cupping, or what I generally prefer to it, the application of leeches to the temples, the vertex, and occiput, or behind the ears; they should be applied in large numbers, and the flow of blood encouraged until the morbid actions in the brain are arrested or removed; and we may infer that some impression has been made on the complaint if we find a tendency to deliquium, a weakness or fluttering of the pulse, and a shrinking of the features, symptoms often observed to follow the application of leeches, and which show the power of local blood-letting over the action of the heart and arteries. The same method of depletion should be had recourse to on every return of excitement.

"Nor do I mean to limit the employment of leeches to those cases only where blood cannot be abstracted by the lancet. My opinion on this point may be collected from a view of the cases detailed, in which leeches were generally used immediately after venesection, in order to postpone the period of exacerbation, or break the chain of diseased action. I was led to adopt this plan of treatment from observing that these two modes of drawing blood, when successively employed, made a greater impression on the disease than either of them when singly had recourse to.

"As soon as a check has thus been given to the disorder of the head by the action of these several remedies, some benefit is to be expected from the judicious administration of calomel with opium. The good effects of a combination of these remedies seem to depend on their power of equalizing the circulation, increasing the secretions, and exciting the actions of the cutaneous vessels, in consequence of which the congestion of blood in the brain, or in any other organ, is diminished or removed. The dose must be regulated by its effect, the constitution of the patient, and the violence of the attack. Although, generally speaking, it is difficult to induce ptyalism in this complaint, yet as calomel in some cases unexpectedly attacks the salivary glands, and produces ulceration and mortification of the fauces, I prefer giving it at first in small quantity, which may be increased at pleasure. In acting thus cautiously we avoid the painful consequences sometimes observed to follow its exhibition.

"The efficacy of opium, united with calomel, depends in some measure on its checking the tendency of the latter to run off by the bowels or salivary glands; so combined, it often procures tranquil rest, determines to the surface, and allays that painful irritation of the nervous system, and of the mind and body, which so uniformly accompanies this disease. I cannot bring to my recollection a single instance in which this remedy, when judiciously exhibited after depletion, was followed by disagreeable consequences; and in cases unaccompanied by great irritability of the stomach, its powers are occasionally increased by the addition of small quantities of ipecacuanha, or antimonial powder.

"While speaking of opium I beg leave particularly to recommend to the consideration of the practitioner the 'watery extract,' a preparation which procures rest, diminishes pain and irritation, and diffuses throughout the frame an agreeable sensation; at the same time it is devoid of any narcotic or nauseating quality, and does not cause vertigo, pain, or a sense of fullness in the head, symptoms so often observed to follow the exhibition of the thebaic extract, or the common tincture.

"Among the auxiliary remedies, the tepid bath holds the first place; its use is often attended with manifest advantage; indeed in some instances the benefit resulting from its employment is as unexpected as it is extraordinary; I have seen it at one time reduce the intense heat and dryness of the skin, at another produce a genial warmth and moisture of the surface, and thus allay irritation, diminish the action of the heart and arteries, and check for a while the violence of the disorder. The tepid bath will prove most serviceable after the employment of blood-letting and cathartics; it should be used twice or thrice daily,

according to the urgency of the symptoms, and the effect produced. The period of immersion is from fifteen to forty minutes, about an hour before which the patient should take a dose of calomel and opium, and while in the bath small repeated draughts of tepid whey or barley-water, in which is dissolved tartrate of antimony,* in doses so minute as not to excite nausea or vomiting; and during this period friction must be constantly applied to the body and extremities with the hand or a soft brush. Blisters are never to be employed previously to depletion, or while there is a high degree of excitement, for under such circumstances, by their stimulating powers, they rather tend to aggravate than diminish the disease. On some occasions they are useful when applied to the head or its vicinity, chiefly on the principle of counter-irritation, and partly by the fluid abstracted from the cutaneous vessels, whereby the congestion of the interior is in some measure diminished. Blisters sometimes afford relief when applied between the shoulders, or along the spine, owing in a great degree to the connexion of the spinal marrow with the brain, and instances occasionally occur where evident advantage proceeds from their application to the extremities. Now, as in these cases I have observed perspiration to follow their employment, the benefit hence resulting seems to me to proceed from their action on the vessels of the surface, and the power they thus possess of restoring the equilibrium of the circulation.

"Here I should not omit to suggest to the faculty the use of the antimonial ointment; the happiest effects occasionally arise from its application to the vertex or occiput, especially in cases which supervene to repelled scabies of the hairy scalp; it is quick in its operation, and produces a pustular eruption similar to the scabies; this is often attended with a copious discharge of puriform matter, which is followed in some instances by almost instantaneous relief of the painful and alarming affection of the head.

"I have made no mention of a remedy much extolled by some practitioners, I mean a caustic issue established in the vertex, for I never witnessed any benefit to result from its employment in acute hydrocephalus, nor indeed is it reasonable to expect that in a disease which often runs its course in a few days, benefit can be derived from a remedy which requires the same or a longer period before it takes effect."—*Transactions of the King and Queen's College of Physicians in Ireland, Vol. V.*

---

57. *Treatment of Chronic Hydrocephalus.* By Thomas Mills, M. D.—"Acute hydrocephalus is distinguished by a high degree of arterial excitement; the chronic form by venous turgescence of the brain, an imperfect development of disease, and an unequal distribution of the blood; but as in both forms several modifications and varieties may be traced, due regard must be paid to the peculiarities of every case, as these must necessarily require some modification of the mode of treatment; still, however, the curative process is to be governed by the same general principles, and the same means are to be employed, regulated by the urgency of the symptoms, and the age and constitution of the patient. Blood-letting, general and topical, cathartics, mercurials, opiates, &c. are the principal means to be employed in chronic as well as in acute hydrocephalus; but as in the latter the danger is more imminent from the high degree of excitement with which it is usually accompanied, the most efficient remedies are to be employed with promptitude and decision. In the chronic, on the contrary, the disease is slower in its progress and development; and as the

* Since this paper was written, (1821,) I have given tartar emetic more frequently, and in larger quantity than formerly, and with decided benefit, especially in the acute form of the complaint. This active agent possesses in many instances the power of diminishing the tone and activity of the vessels of the brain and heart, and thus of breaking the chain of diseased action. This appears from its effects: a sinking of the pulse, collapse of the features, tendency to deliquium, accompanied by cold perspiration, and a diminution of the head-ache, and throbbing of the temples. I was induced to make a trial of this remedy in hydrocephalus from witnessing its good effects in maniacal delirium and other disorders of the brain, arising from a high degree of vascular excitement. The dose varies from one-fourth of a grain to two, four, five, or even ten grains, dissolved in water, to which may advantageously be added, when the stomach is irritable, small doses of the tincture of opium.

symptoms are less urgent, measures of a milder nature are commonly required; I say commonly required, because cases of chronic hydrocephalus occasionally arise in which the system is so overpowered by the venous turgescence of the brain, that, to save the life of the patient, recourse must be had to the most decidedly active measures.

"I shall only further remark, with regard to the treatment of chronic hydrocephalus, that permanent benefit is to be expected from the early establishment of a drain in the vertex or its neighbourhood, and that mercury should be administered more largely, but opium more sparingly than in the acute form."—*Ibid.*

—

58. *Treatment of Venereal Cases at the Val de Grâce.*—During the height of the symptoms the diet consists of light meagre broths, milk, prunes, cooked fruit, and eggs; on the subsidence of the disease, a small portion of bread is given, which is gradually augmented in quantity. The drink consists of different emollient and refreshing tisanes. If a cure takes place, beer and even wine is allowed. The patients are confined to bed in order to keep up perspiration, and are only allowed to leave it when they take a warm bath, which is every four or five days. If the symptoms continue, or if they are secondary, the simple sudorific syrup or the tisane of Feltz is used, but without the addition of mercury.

Under the effects of such a regimen, venereal symptoms rapidly disappear, but it should be persevered in for some time for fear of a relapse. Local emollient lotions are used at first, and afterwards astringent. When the inflammation of the prepuce is violent, local bleedings appear to be dangerous. If the chancres are painful, leeches are to be applied to their surface several times, and they are to be bathed with a watery solution of opium. Buboes are treated by constant leeching, and poultices are never applied to them; but they may be fomented with emollient washes. If they suppurate, an issue is given to the pus by several small openings, which are kept open. Urethrites and orchidites are also treated by emollients and capillary bleedings. Astringent injections and the balsam of copaiba are never used until all inflammatory symptoms have been subdued. In old cases opium is given internally. Vegetations about the anus and on the prepuce are treated by applications of leeches in cases of high inflammation, and afterwards by lotions, with gummy extract of opium; such a plan generally precludes the necessity of recurring to excision. Eruptions yield to the same treatment. In ulcerations of the throat and soft palate, general and local bleedings are used; to effect the last a thread is passed through the tail of the leeches which are then placed in a glass tube, and introduced to the diseased spot.—*Annales de la Médecine Physiologique, January*, 1828, *from the Journ. Universel des Sciences Med. Oct.* 1827.

—

59. *Iodine in Gout.*—M. Gendrin has announced to the Royal Academy of Medicine, that for some years past he has successfully employed the iodine in gout, and that it produces an absorption of the arthritic concretions, and prevents the return of the paroxysm. Seven cases of the disease in its acute and chronic form, were mentioned as having been cured in this manner.—*Journal de Chimie Médicale.*

—

60. *Deafness cured by Electricity.*—A girl, æt. eight years, who had lost the faculty of speech and hearing four years previously, was subjected about twenty times during four months to the action of an electrical machine. The fluid was employed in a variety of ways, sometimes by means of electric baths, sometimes by sparks, and at others by shocks directed as nearly as possible to the affected organs. At the expiration of the above-mentioned period, a great improvement was perceptible; the patient, who previously could not hear the report of a pistol discharged by her side, is now able to understand conversation carried on in a moderate tone.—*Journal des Progrès, Vol. VIII. from Rust's Magazin, t. xxv.*

OPHTHALMOLOGY.

61. *Case of Periodical Blindness, from a cause not hitherto observed.* By CHARLES BELL, Esq.—A lady, æt. twenty-four; delicate frame; great intelligence and expression; accomplished and studious; was in the habit of drawing a great deal, and had painted a miniature a short time before the symptoms now to be described.

In August, 1826, she began to have head-aches of an uncommon character; the pain extended down the side of her face to the angle of the jaw, and then backwards into the ear, with a sensation of tightness in the skin of the forehead; and this pain was experienced first on one and then on the other side of the face. These pains appeared to her physician to be connected with considerable disorder of her stomach and alimentary canal, increased, if not produced, by too sedentary a habit, and application to drawing. After a dose of calomel and opium, she took in succession, the sulphate of quinine, the extract of henbane, and the liquor arsenicalis. She took also the blue pill till her mouth became sore.

The pain ceased, and a "heavy stupidness" prevailed for a few days, when one day in reading, she found she could not see the letters—they were thrown together and confounded. This obscurity of vision was attended with a fluttering in the eyes, which seemed to her alternately to open and shut with great rapidity: by turning away from her book, and attending to other things, she could read for some time when she again looked upon the page. The application of leeches relieved these symptoms for a day or two; but the relief was temporary, and she gradually lost the power of directing her eyes. From the beginning of this affection of the eyes, the pain ceased in the head. This actual blindness came on periodically. It began about ten o'clock in the morning, and ceased about four; and, during the blindness, there was constantly presented a quick motion of the eyelids and eyeballs; and, during the whole of these attacks, she lost all control over the muscles of the eyelids and eyeballs. She could distinguish light from darkness; her vision was occasionally restored. Her medical attendant believing these symptoms to be connected with nervous irritability, tried galvanism, and, almost on the first shock which was given across the eyes, she could find her way out of the room, and distinguish colours; but the remedy after this produced no benefit, and she even lost that degree of vision which she had enjoyed in the morning and evening.

When Mr. Bell saw the patient her eyelids were dropped over the eye, but not with the character of paralysis: they were in continual motion while she spoke, being raised and depressed for about the twelfth of an inch, and never so far raised as to expose the pupils; the eyebrows were raised by an ineffectual attempt to open the eyelids. She could close the eyes and wink, powerfully compressing them. The secretion of tears flowed plentifully. There was not the slightest degree of inflammation in the eyes. The concealment of the pupil was not altogether owing to the dropping of the eyelids, but to the eyeballs being at the same time rolled upwards: she has an equal inability of raising the eyelids, and of depressing the eyeballs. The eyelids being stretched over the eyeball, and her face directed to the window, she saw a bright yellow light, showing that the defect of vision was not in the retina; moreover, on the lid being forcibly raised, so as to disclose a small portion of the pupil, the patient could see. It was not therefore any morbid insensibility of the pupil which rendered this young lady blind, but the fact that she cannot even for a moment direct her eye to the object. She has a pain extending round the head as if it were bound by a hoop; this is not continual, but is excited by the motion of a carriage or by noise. She has also a whizzing in her ears.

Mr. Bell expressed it as his opinion, that this was an instance of that irregular muscular action which depends on some remote irritation, and not referrible to

organic disease, either of the brain or nerves, and that he saw no reason why we should not hope for sudden restoration of sight.

Mr. Bell's first idea was to excite the viscera of the abdomen by emetics, and to follow those up by opiates. During the operation of the first emetic her eyes opened, and she saw for a short time. On the second operation her eyes remained open for ten minutes. The opiates being then administered, on the first morning when she awoke she saw perfectly, but after a short interval she was again blind. On the third of January she saw during all the time of breakfast, and played a new song from the book. During Mr. B.'s visit, whilst he was writing a prescription, she called to him to look at her, and to his surprise he perceived that her eyes were open, and steadily fixed on him, and her whole countenance was improved. Her sight continued perfect whilst Mr. Bell remained in the house.

It is not said whether the cure remained permanent.—*London Medical Gazette, Vol. I. No. 5.*

—

62. *Examination of the Eyes of a person affected with Amaurosis.*—Professor Heusinger found, on examining the eyes of a person affected with amaurosis, that both optic nerves were in a state of atrophy, and that the eyes were well formed, and presented the natural consistence. On puncturing the sclerotica, which was done with care, a considerable quantity of a yellow-coloured humour escaped; it communicated a yellow tint to the water, and coagulated on the addition of alcohol. The choroid and retina were natural; the vitreous humour had completely disappeared; the lens was yellow and opaque. The most remarkable part of the examination was the discovery of three transparent vesicles, of a pyriform shape and the size of a pea, adhering to the outer surface of the retina. These contained a fluid similar to that which escaped on opening the sclerotica, and M. H. thinks that the fluid which first escaped, was contained in similar vesicles. According to M. H. they were formed by Jacob's membrane. Both eyes presented exactly the same appearance.—*Heusinger's Zeitschrift für die Physik, tom. I.*

—

63. *Treatment of Stricture of the Lachrymal Duct.*—The instruments employed by M. Dupuytren in the operation for the cure of this affection, "are a common French bistoury, a canula of silver, gold, or platina, and a *porte-canule*, to which the canula is affixed for being more conveniently inserted in the lachrymal passage. The length of the canula is one inch; its upper opening measures one-tenth of an inch; the tube gradually tapers from its upper to its lower opening, the diameter of which measures one-twentieth of an inch; the lower opening is placed obliquely, and the upper opening is surrounded by a small rim to prevent its sinking too low into the duct."

The operation is performed as follows. "The patient being seated in a chair, rests the head against the breast of an assistant, who fixes the head by a hand placed over the ear and temple on each side. The operator, (supposing the left eye to be operated upon,) stands in front of the patient, and a little to the left side. With the index finger of the left hand he puts the integuments at the inner angle of the eye upon the stretch, for the purpose of rendering the tendon of the *orbicularis palpebrarum* more evident, at the same time that the assistant who holds the head, stretches the integuments at the outer angle of the eye. The lachrymal sac is then to be punctured by the point of the bistoury being inserted immediately below the tendon of the *orbicularis palpebrarum*. The direction in which the instrument should be inserted is nearly vertical, the handle inclining slightly to the opposite side, and a little forwards, on account of the projection of the eyebrow, the edge of the blade being directed obliquely downwards, or towards a point situated midway between the angle of the mouth and the pinna of the ear, this being the direction which admits of the bistoury being insinuated to the greatest extent down

the lachrymal canal. The puncture being made, the bistoury is allowed to remain as a director, and the operator taking in the left hand the porte-canule armed with the canula, gently insinuates the tube along the side of the bistoury into the lachrymal canal; the bistoury is then withdrawn; slight pressure is made upon the upper part of the canula, so as to cause it to be completely imbedded in the canal. The operation now being completed, the patient is directed to blow down the nose at the time that pressure is made upon the nostrils, by which the tube is freed from any blood that may have accumulated in it, and the air issues out at the incision, showing the free communication that is established between the nostril and the sac."—*Edinburgh Med. and Surg. Journ. Jan.* 1828.

—

64. *Treatment of slough of the Cornea.*—As an external remedy in this dangerous state of the eye, Mr. RYALL says that there is none so grateful, or withal so efficacious for throwing off the morbid parts, as a solution of the nitrate of silver, in the proportion of eight grains to the ounce of distilled water, briskly injected against the slough three or four times a-day. But to obviate and arrest the progress of this serious termination of disease, he observes, we must rest our chief reliance on the extract of cinchona, so justly praised by the late Mr. Saunders. Opportunities, he says, are afforded him but too frequently, of giving this medicine a fair trial, in the cases of young infants, born for the most part in the Lying-in Hospital, and he asserts, that greatly as he had been prepossessed in its favour, it far exceeded his expectations, since both shape and function were preserved, to an extent he dared not to hope for, in several instances where death of the exterior lamina of the cornea, or of a segment of its entire thickness, had already taken place, and when the eye had presented the appearance of a disorganized mass. Mr. R. has also lately used the sulphate of quinine with manifest advantage.—*Transactions of King and Queen's College of Physicians in Ireland, Vol. V.*

—

65. *Treatment of Pustular Ophthalmia.*—Should considerable inflammation exist, Mr. RYALL recommends leeches and purgatives, but the ulcerative process of the pustules will be restrained, and in most cases speedily removed, he very correctly observes, by a few light touches of a strong solution of the nitrate of silver. Advantage will also be derived from the application of a dilute ointment of the nitrate or super-nitrate of mercury every night to the pustules.—*Ibid.*

—

66. *On Porriginous Ophthalmia.* By THOMAS CHRISTIAN, Consulting Surgeon to the Liverpool Ophthalmic Infirmary.—Inflammation of the eye is a very common complaint in children of a scrofulous diathesis, and is also a frequent coincident with eruptive diseases. Sometimes it occurs, and often alternates, with eruptions of the scalp and discharges behind the ears, and when thus appearing has then been termed by Mr. Wardrop exanthematous ophthalmia. It frequently also presents itself in concurrence with porrigo larvalis and porrigo favosa of the face and head, and to this combination Mr. Christian has given the name of porriginous ophthalmia. This, says Mr. C. is a disease of early life, affecting principally children, though sometimes seen in the adult subject. It is usually accompanied by an eruption of pustules on the face or head, which go through the various stages of suppuration, ulceration, and desquamation: and if the eruption in its pustular form shall have disappeared before the inflammation of the eyes have commenced, still there will almost always be found some traces of the original disease, in the form either of scabs or fissures, situated behind the ears, at the commissures of the palpebræ, or at the junction of the alæ nasi with the cheeks. It is worthy of remark, that when the fissure or chap is situated between the lips, attended with excoriation of the nostrils, the upper lip often swells, assuming the appearance of what is vulgarly termed the scrofulous lip, which may be one cause of the disease being referred to this origin."

The symptoms of the disease are similar to those of scrofulous ophthalmia as usually described. Mr. C. attributes the inflammation of the eyes to the porriginous virus being conveyed from the eruption or pustules to the eyes by means of the fingers. In the treatment of this complaint, Mr. C. says that bleeding, either topical or general, is seldom necessary, except the inflammation has extended to the internal tunics of the eye: blisters are useless, and cooling and sedative lotions unavailing. In fact, he believes the inflammation to be a specific one, and that "the object to be kept in view in the treatment of this particular affection, is not so much the alleviation of pain and irritation, as the production of a new action in parts already under the influence of a specific disease." We cannot coincide with our author in this opinion, but as the remedies which he recommends are those which he says have been found by an extensive experience to be useful, we shall furnish our readers with an account of them. The best remedies, he says, are the mercurial ones. "A weak solution of the oxymuriate of mercury, composed of one quarter of a grain to the ounce of water, forms a very useful application: or if there be much discharge from the eyelids, and especially if accompanied by excoriation of the parts around the eye, the mixture of calomel and lime water, known by the name of black wash, will be found to be one of the best local remedies. The unguentum hydrargyri nitratis mitius, or the unguentum hydrargyri præcipitati albi, affords an excellent dressing for the eruption, or ulcers about the face and ears, which require to be attended to; a small portion of the former, or the red precipitate ointment diluted, is to be introduced within the palpebræ at bed-time. Previously, however, to the use of these latter means, a weak solution of the argentum nitratum, in the proportion of two grains to the ounce of distilled water, should be dropt on the surface of the globe, and this ought to be repeated every second day, as long as the ulcers continue. It has already been remarked, that the morbid action has been kept up, in the fine textures of the eye by the presence of an ulcer, or fissure at the corner of the eyelids, which will be frequently observed to bleed, whenever the palpebræ are forcibly separated. These fissures must be touched, every second day, with a saturated solution of the nitrate of silver; and during the intermediate days, with the weak ointment of nitrate of mercury."

The vascularity, he adds, together with the irritability, will generally disappear with the healing of the ulcers; but should a degree of morbid sensibility still remain, a collyrium, consisting of four grains of the sulphate of zinc to an equal number of ounces of water, combined with a drachm of the vinum opii, dropped into the eye once or twice a day, will be found highly useful.—*Glasgow Medical Journal, February*, 1828.

—

67. *Strumous Corneitis and Iritis.*—Mr. Guthrie describes in the *Edinburgh Medical and Surgical Journal*, for April last, an ophthalmia, to which he has given this designation, and which occurs most frequently in girls of a strumous habit, about the age of fourteen, in whom the menses have not appeared. He describes the inflammation as "slow and insidious in its progress, marked by a very slight redness of the conjunctiva, and the greatest possible degree of intolerance. The vessels on the sclerotica are seen on close inspection very minutely injected, and running in straight lines to the margin of the cornea, where they form the well-known appearance of a vascular zone. The cornea soon becomes opaque; the iris contracted; and the aqueous humour muddy. A profuse gush of scalding tears follows the opening of the eye. Though the sensibility is morbidly increased, the patient rarely complains of pain either in the eye or head, the aversion to light being the principal distress.

"The constitutional symptoms run very high; the pulse becomes quick; the appetite is lost; and the bowels constipated or otherwise deranged; skin harsh and dry; and the whole system in a high state of irritation."

The inflammation has its seat principally in the cornea and iris, both of which

are affected simultaneously; when the disease is not controlled, the other textures ultimately become affected.

The disease is extremely obstinate, running a course of from two to three months, yet, when well managed, rarely produces permanent injury to vision. The cornea, though apparently disorganized, resumes its transparency, and the iris its functions, under the influence of those remedies which subdue the inflammation and photophobia. But when allowed to run on uncontrolled, it terminates in coadhesion of the iris and cornea; constricted pupil; opaque capsule, with partial adhesion thereto of the pupillary margin of the iris. If the anterior chamber is preserved, a leucomatous state of the cornea is a frequent result.

The mild, indolent character of the disease, renders it more difficult to subdue, than if more active; and the practitioner is insensibly betrayed into irresolution by the seeming inertness of the disease, and the obvious delicacy of the patient. In this kind of ophthalmia, Mr. G. has never found the detraction of blood either local or general of any avail. The principle of treatment indicated in such cases is, he says, to lessen the irritability of the system, without materially depressing its power. To effect this object, he recommends, as most effectual, emetics, which should be repeated every second or third day for the first week. At the same time ten or twelve grains of Dover's powder should be administered every night, and followed up by a small dose of sulphate of magnesia the next morning. This treatment, he says, will soon give a turn to the inflammation, and reduce the morbid irritability. This being accomplished, mercury must be had recourse to, and introduced into the system, so as to disturb it in the least possible degree. Profuse salivation is not wanted. Its effects are often very decisive long before the gums become affected. Mercury in this disease is a remedy of great value, and will seldom disappoint us, if not too early employed. Blisters he considers as not useful.

Next in importance to mercury he ranks belladonna; without it, he says, the case could not be brought to a favourable termination. The extract should be thickly painted on the eyebrow and eyelid every night at bed time. Besides its influence over the pupil, which is very limited for some time, it has a considerable effect in allaying the local irritability.

Stimulating drops and ointments must be discarded altogether during the acute stage, as well as every other doubtful remedy. The only local application from which Mr. G. has seen any benefit is the steam of warm water containing laudanum. From this the patient generally derives great relief.

When the inflammation has been considerably reduced, and the intolerance of light removed, a little weak precipitate ointment introduced into the eyes twice a week will be of great service in restoring the cornea to transparency. Solutions of nitrate of silver, or muriate of mercury, or *vinum opii* may be occasionally interposed.

In the convalescent state, tonics and sea air are required to complete the cure and re-establish the health. Should the disease lapse into a chronic form, a termination which Mr. G. has occasionally seen, caustic issues superadded to the local treatment will be found successful.

—

68. *Singular defect of Vision.*—"Mr. Airy, of Cambridge, discovered a few years ago that he did not usually make use of the left eye in reading, and that it was entirely useless on looking at any near object. This he at first attributed merely to habit, and thinking that it might be corrected by calling the left eye into use, he endeavoured to read with the right eye shaded, but found that he could not distinguished a single letter, at least of small print, at whatever distance he placed the book. Some time after, Mr. Airy perceived that the image made in the left eye by a bright point, as a star, or distant lamp, was not circular, but elliptical, the major axis making an angle of about 35°, with the vertical and the upper extremity being inclined to the right. With concave spectacles, (through which distant objects were distinct to the right eye,) Mr. Airy found that, to the left eye, a bright object, as those above-mentioned, had the

appearance of a well-defined line, corresponding to the major axis of the ellipse seen by the same eye unassisted. He also found that if he drew two lines crossing each other at right angles, and placed the paper in a certain position, and at a proper distance, one line appeared perfectly distinct, while the other was scarcely to be seen. On bringing the paper nearer to the eye, the fact with regard to the lines was reversed, the distinct becoming indistinct, and vice versa. 'All these circumstances indicated that the refraction of the eye was greater in its plane nearly vertical, than in that at right angles to it, and that, consequently it would not be possible to see distinctly by the assistance of lenses with spherical surfaces.' Mr. Airy's object then was to construct a lens capable of refracting the rays in a certain point more powerfully than those in the plane at right angles to it; and after various ineffectual attempts, his purpose was effected by a person name Fuller, at Ipswich. One surface of the glass is cylindrical, the other spherical; both are concave. Vision is most perfect when the cylindrical surface is turned from the eye; and Mr. Airy can thus read the smallest print with the left eye as well as with the right, and may thus be said to have recovered the use of an organ, which, but for his own ingenuity, would have been permanently lost."—*London Medical Gazette, Vol. I. No. V.*

SURGERY.

69. *Congenital lateral depression of the Chest.*—M. Dupuytren describes in the fifth volume of the *Répertoire d'Anatomie*, a congenital deformity of the chest, which he says has frequently come under his notice. This deformity consists in a depression of the sides of the chest, a proportional projection of the sternum and abdomen anteriorly, and the vertebral column posteriorly. In children of scrofulous and other cachectic constitutions, affected with this deformity, the sternum projects like a keel; the vertebral column presents quite a lump, whilst the sides are not only flattened, but depressed. This deformity exists to such a degree sometimes, that the two sides of the chest may be embraced with the fingers of one hand. The transverse diameter of the chest is thus considerably diminished, whilst the antero-posterior is enlarged. The function of the organs contained in the chest become impaired, manifested by oppression and catching of the voice, and great anxiety. These symptoms are greatly increased on taking the slightest exercise, just as in cases of diseases of the heart, for which complaint this affection is sometimes taken. During sleep, respiration, impeded by the malformation of the chest, and swelling of the tonsils, is performed with the mouth open, and attended with considerable noise. Sleep is frequently disturbed with painful dreams, and is often interrupted by cries and starts. These symptoms may exist to such a degree as to prevent the development of the vital functions, and produce death at the time of birth. If death does not take place so soon, nutrition will be disturbed, and the children become emaciated. New-born children experience great difficulty in sucking. The deformity is generally accompanied with a considerable swelling of the tonsils, which adds to the difficulty of respiration, and in some cases so much, that M. D. has been obliged to remove a portion of the tonsils. Pulmonary catarrh is also a frequent complication of this malformation, but the most dangerous of all the complaints which supervene on it, is croup.

In the treatment of this affection, M. D. recommends a generous diet, and as much exercise as the patient can endure without producing difficulty of respiration. To these must be added local means, the most efficient of which, he considers to be those which strengthen the extensor muscles of the arm and shoulder, and also pressure on the fore part of the sternum. The kind of exercise recommended by M. D. is the lifting of a weight for many hours a-day. The weight is to be suspended to a rope that passes through two pulleys; the extremity of the rope that is to be laid hold of, ought to be attached to the middle of

a lever which is seized by the two hands, whilst the other extremity supports a weight proportioned to the strength of the individual about to raise it. The person standing upright, and even raising himself on his toes to reach the lever, placed at the extremity of the rope, seizes it with both hands, and thus employing the muscles of the forearms, the arms, the neck, and the chest, to bind at the same time the head, the chest, and the body, and to incline them towards the ground, he raises the weight suspended at the other extremity of the rope, and employs alternately the flexors to raise the weight, and the extensors to balance the body. To this kind of exercise must be added pressure on the chest, which should be effected by placing the back of the child against a wall, and pressing against the sternum with the palm of the hand as often, and with as great a degree of force as the strength of the person admits of. This pressure ought to be used ten, or even a hundred times a day, if possible, and its efficacy is proportioned to the continuance of the pressure, and its frequent repetition. By the above means of treatment, M. D. has been enabled to cure patients before supposed to be incurable.

—

70. *New method of treating Aneurisms of the Ascending or Descending Aorta.*—M. Larrey has communicated to the Royal Academy of France a new method of treating this formidable affection. It is that of Valsalva, conjointly with the constant application of ice to the tumour. The following case, among others, is stated to have been cured by this method. A soldier suffered in consequence of a wound from a varicose aneurism of the crural artery. The size of the tumour exceeded that of the fist. Every operation was impracticable, and the patient was expected soon to die. However, he was subjected to Valsalva's method, (low regimen, rest, and frequent bleedings carried to marasmus,) and the application of ice, and then several moxas. In the space of a few months the tumour was considerably reduced. It was also judged from different signs, that its walls were thickened in proportion to the reduction of its volume. Finally, a complete obliteration of the crural artery took place, and the patient was cured in less than a year.—*Bulletin des Sciences Médicales, December*, 1827.

—

71. *New method of treating Ranula.*—M. Dupuytren thinks, that the best mode of radically curing ranula is to keep the aperture, made in the tumour, constantly open, by means of a foreign body introduced and kept in the cyst, on the same principle as in the operation for fistula lachrymalis. To effect this object he uses a small cylinder three lines long, and from one line to one and a half lines in breadth, and terminated at each extremity by a small elliptical plate, slightly convex on its free surface, and concave on the surface that adheres to the cylinder; one of these plates is placed inside the sac, and the other should correspond to it externally, that is to say, in the cavity of the mouth. This instrument may be made of silver or platina, the latter is the best. M. Dupuytren has been uniformly successful with this instrument. If the tumour is very large, or if its parietes be thick, it will be convenient, before applying the instrument, to make a large opening into the sac, sometimes even to excise a portion of it, and not to pass the instrument until the wound has almost cicatrized. *Répertoire Général d'Anatomie, tom. 5.*

—

72. *Amputation of the Thigh during the progress of Gangrenous Inflammation.*—George Macdermott, Esq. relates in the *Edinburgh Medical and Surgical Journal*, for April, 1828, the case of a soldier, æt. twenty-two, of sober habits and generally healthy, who suffered a compound fracture of the leg, produced by a fall from a considerable height. The usual treatment was pursued, and no very unfavourable symptoms took place until the fifth day, when the leg became much swelled, œdematous, and of a deadly pale colour, and he complained of a burning heat in the instep. On the morning of the sixth day the fore part of the leg from the knee to the instep was in a state of gangrene; and close to the fracture, the integuments, cellular membrane, and superficial muscles,

were completely sphacelated. The disease was rapidly advancing, and had already reached half way up the thigh—his constitution fast sinking under it—his stomach irritable—his countenance sunk and alarmed in its expression—his pulse low, frequent, and weak.

Under these circumstances, Mr. Macdermott thought that the vigour of his constitution seemed to afford the only chance of saving his life, and without waiting for a line of demarcation to be formed, he immediately amputated the limb about three inches below the trochanter major, which was as low as could be done, the integuments even there being discoloured and œdematous. The patient sunk extremely low after the operation, but revived by the application of stimulants. The suppuration was very considerable for several days, and the sloughing of the cellular membrane so extensive as to require the free administration of wine, tonics, and nourishing food. No exfoliation took place. Six weeks after the accident, the stump had perfectly healed, and the young man was in the enjoyment of excellent health.

—

73. *Fracture of the Trochanter Major, which may be mistaken for Dislocation of the head of the Femur.* By Edward Stanley, Esq.—Fracture of the trochanter major, combined with fracture of the neck of the femur, has, under certain circumstances, a strong resemblance to a dislocation of the head of the bone. When from the direction of the fracture, one portion of the trochanter has been drawn by the action of the muscles towards the great ischiatic notch, no crepitus may be observable, and a direct source of mistake from the positive resemblance of the fractured portion of the trochanter to the head of the femur, the former occupying the same place which the latter would do in dislocation: and if with these circumstances there should happen to be an inversion of the injured limb, the difficulty of the diagnosis must be considerably increased.

Case I. A woman, æt. sixty, "fell in the street and injured her right hip. On examination, the limb was found slightly everted and shortened to the extent of three-quarters of an inch, but moveable in every direction. The extremity of the shaft of the femur was in its natural situation, but behind the femur and at a little distance from it, a bony prominence was discovered resting upon the ilium, towards the great ischiatic notch, strongly resembling the head of the femur. Various opinions were entertained as to the nature of the injury, some believing it to be dislocation, and others fracture. After a confinement of several months to her bed, the woman was sufficiently recovered to walk with the assistance of a crutch, and in this state she continued till her death, which took place about three years from the date of the accident, during the whole of which period I had watched the progress of the case. Having obtained permission to examine the seat of the injury, I ascertained that there had been a fracture extending obliquely through the trochanter major, and through the basis of the neck into the shaft of the femur, and that the prominence which had been mistaken for the head of the bone, was occasioned by the posterior and larger portion of the trochanter, drawn backwards towards the ischiatic notch.

Case II.—"A man æt. sixty-five had been knocked down in the street. His scull was severely injured, and he had likewise sustained an injury in the right hip. His death took place on the tenth day from the time of the accident. The particulars of the injury sustained by the hip were as follow:—The limb was shortened and everted. Behind, and at a considerable distance from the extremity of the shaft of the femur, a distinct prominence was discovered, so nearly resembling the head of the bone, that it was presumed a dislocation had occurred. On this presumption forcible extension of the limb was made, which shifted the prominence that had been mistaken for the head of the bone. On examination of the hip after death, a fracture was found extending through the trochanter major and through the basis of the neck of the femur. One portion of the trochanter had been drawn backwards into the situation which the head of the bone would occupy in dislocation; but it still retained sufficient connexion by periosteum, with the shaft of the femur, to explain the change in its situa-

tion during the extension of the limb."—*Medico-Chirurgical Transactions, Vol. XIII.*

74. *Case of Fracture of the neck of the Femur, with Inversion of the Limb.* By EDWARD STANLEY, Surgeon.—"A middle aged man fell in the street, and his hip struck the curb-stone. The immediate consequences were that the limb was inverted and shortened to the extent of an inch: and no crepitus could be discovered. It was presumed that a dislocation had occurred: and accordingly an extension of the limb was made, and so great was the constitutional irritation occasioned by repeated trials to reduce the supposed dislocation, that the man died about five months from the time of the accident. In the dissection of the hip, a fracture was found extending obliquely through the middle of the neck of the femur, but entirely within the capsule. A portion of the fibrous and synovial membrane on the anterior side of the neck of the bone had escaped laceration." —*Ibid.*

75. *Case of Fracture of the neck of the Femur, without injury to the Synovial and Fibrous Covering.* By E. STANLEY.—"A man æt. sixty, was knocked down in the street, and on his admission into St. Bartholomew's Hospital, shortly after the injury, he complained of pain in the hip; but there was neither shortening nor eversion of the limb, and its several motions could be executed with perfect freedom and power. In this absence of all the usual indications, a fracture was not suspected: the patient therefore was merely confined to his bed. At the end of a fortnight he had an attack of inflammation in the intestines, from which he recovered, but suffered a relapse, and died in the fifth week from the date of the accident. On examining the body, no trace of injury was found in the parts around the hip-joint; but on opening the capsule, small effusions of blood, apparently not recent, were discovered beneath the synovial and fibrous membrane, covering the neck of the femur, also beneath the synovial membrane covering the ligamentum teres. The head and neck of the bone were sawed through their middle, and in each portion a dark line, evidently occasioned by the effusion of blood, was seen extending through the bone at the basis of the neck. A fracture was discovered extending along this line; but the broken surfaces were in contact, and the synovial and fibrous membrane covering the neck of the bone was uninjured.

"In this case, if an attempt had been made to walk at the end of two or even three weeks from the accident, a separation of the fractured surfaces and consequent shortening of the limb would have been the result. Hence, in cases where the nature of the injury is doubtful, we may infer the obvious propriety of imposing on the patient a strict confinement to his bed for as great a length of time as if the fracture had been ascertained. Another obvious inference is, the necessity of a minute attention to the circumstances under which the accident occurred; these, in the absence of all clear and decisive indications of the nature of the injury, being often our only guides."—*Ibid.*

76. *Case of complete Dislocation of the Articular Processes and Body of the Fourth Cervical Vertebræ from those of the Fifth, without Fracture.* By W. LAWRENCE, Esq. Surgeon to St. Bartholomew's Hospital.—Complete dislocations of the vertebræ without fracture, are so uncommon, if we except the first and second bones of the neck, that the possibility of the occurrence has been doubted and even denied by some of the highest authorities. Mr. Lawrence relates in the *Medico-Chirurgical Transactions, Vol. XIII.* the following case which came under his care at St. Bartholomew's Hospital.

A robust, healthy man, æt. twenty-two, was carrying a heavy barrel on the back of his head and neck, slipped in descending some steps, and fell on the buttocks, the burden resting on the head and upper part of the neck. He was immediately deprived of sensibility in the trunk and limbs, and of all power over the voluntary muscles of those parts. When brought to the hospital, in the af-

ternoon of January 8th, "he was completely insensible, and incapable of voluntary motion below the neck. The functions of the brain were not disturbed. Respiration was apparently performed merely by the diaphragm: its descent enlarged the chest, while the elasticity of the thoracic and abdominal parietes restoring the parts which had been previously displaced by the diaphragm, seemed to be the only agent of expiration. The chest was motionless, except towards its inferior margin, and the abdominal muscles were soft. The pulse was weak and slow, and the body cold; the penis was in a state of permanent erection. No irregularity in the line of the spinous processes could be discovered by accurate examination. He was placed on the back in bed with the head carefully supported. In four or five hours the pulse had become full and strong, and the heat of the body was greater than natural; respiration was rather hurried. Venesection to sixteen ounces; a dose of calomel and jalap. Four ounces of urine were drawn off by the catheter.

"*Jan. 9th.*—He dozed in the course of the night, but did not sleep. There is pain in the lower part of the neck. He can move the arms very slightly, and has a little feeling in the front and upper part of the chest. Dark offensive stools have been passed involuntarily. When the catheter was introduced in the morning, only a table-spoonful of urine came away: six ounces of high-coloured urine were drawn off in the evening. Respiration is slower, the pulse full, heat natural. Saline draught every six hours.

"10*th.*—Feels better this morning, having slept three or four times in the night for about an hour each time. Has experienced a tingling sensation in the hands, and is sensible to impressions on the upper part of the arms and thighs: stools have passed involuntarily; he complains of distention of the bladder; eighteen ounces of high-coloured urine were drawn off, and deposited a dark brown sediment. The priapism continues. Four ounces of urine drawn off in the evening.

"11*th.*—He has not slept during the night, and is worse this morning. Respiration becomes difficult, so that speaking requires a painful effort; and the countenance expresses distress and anxiety. The tongue is light brown, and dry in the middle. Fæces have passed involuntary, and six ounces of urine, lighter coloured than that of yesterday have been drawn off. Breathing became more laborious in the evening, and the countenance extremely anxious; the pulse weak and low, surface of the body cold. He expired at one in the morning of the 12th, from increasing embarrassment in respiration.

"*Examination.*—No displacement nor irregularity could be discovered by external examination when the body was laid on the face. After cutting away the muscles from the back of the spine, the cartilaginous surfaces of the superior articular processes of the fifth cervical vertebra came into view: they were exposed in consequence of the inferior processes of the fourth vertebra having been completely dislocated forwards, and remaining fixed in their unnatural position. The yellow ligaments connecting the laminæ of the two vertebræ, (ligamenta subflava,) were torn through, and the bifid apex of the fourth spinous process lay in close contact with the basis of the fifth. On the front of the column an unusual projection was observed, but the anterior longitudinal ligamentous expansion was entire. The body of the fourth was completely detached from that of the fifth vertebra, the connecting fibro-cartilage being torn through, and the body of the former projecting by its whole depth in front of the latter. In consequence of this displacement, the antero-posterior diameter of the vertebral canal is lessened by about one-third. The section of the bone was not made till some days after death, so that the recent state of the spinal marrow could not be estimated."

Death was caused by the paralysis of a large portion of the muscles of respiration, and by the consequently imperfect mode in which the mechanical phenomena of that function were executed.

77. *Cases of Lithotomy.*—Mr. Liston has published in the *April No.* of the *Edinburgh Medical and Surgical Journal*, twenty-nine cases of lithotomy performed by the lateral method, of which twenty-seven were successful, and one of the fatal cases can scarcely be attributed to the operation; the patient died suddenly apoplectic fourteen days after the operation.

78. *On the Operation of Lithotomy.*—Mr. Crichton has published in our esteemed cotemporary, the *Edinburgh Medical and Surgical Journal*, for April, 1828, some interesting observations on the operation of lithotomy. He objects to the term *dissection*, as employed by writers in their instructions for the performance of this operation, as the idea which we attach to that term is the slow and cautious division of a part, fibre by fibre. In the dead subject no inconvenience can result from this, but on the living body every unnecessary incision is unwarrantable cruelty, as well as adding to the danger of the operation. He very correctly remarks, that two, or at most three strokes of the scalpel are sufficient to lay bare the membranous part of the urethra; and certainly the less the parts are mangled, and the more direct and continuous the opening is, the less risk there will be of urinary infiltrations and sloughing sores.

There is, Mr. C. says, great want of clearness in the directions given by authors for finding and laying hold of the stone. Directions are given as if the stone were to be searched for in a distended bladder, or an empty space; whereas, when the bladder is laid open the urine escapes, and the bladder contracts around the stone, and the latter is to be found close to the opening, at least it has been so in nearly one hundred cases, in which the operation has been performed by Mr. C. The difficulty and delay in finding it, is owing, he thinks, to operators not adverting to this plain circumstance, and consequently "the forceps are at one time passed over the stone carrying the coats of the collapsed bladder before their point; they are opened and shut, shut and opened; they are pushed this way and that way, and still nothing is found; the stone all the while lying behind the blades. At another time the stone is pushed before the points of the forceps, and a portion of the bladder contracting around it like the finger of a glove, it cannot be laid hold of. The like may also possibly happen from the bladder being too much distended with urine, in consequence of the cruel and absurd practice recommended and sometimes adopted, of compressing the urethra for some hours before operating, in which case the bladder, when suddenly emptied, may collapse irregularly, and retain the stone, especially if it be a small one, betwixt its folds."

Mr. C. recommends attempting to unite the wound by the first intention. In a patient of good habit of body, when the incisions have been properly conducted, the stone not large and readily extracted, and when the urethra and prostate gland have been divided by one cut, without hacking and mangling, there is reason, he says, to think the attempt might not unfrequently succeed, and thereby divest the operation of much of its terror and accompanying distress. "It is only," he adds, "within these few years that my attention has been directed to this part of the subject: and I have already had the satisfaction of witnessing the wound made in the operation healed by the first intention in five instances, the urine passing off by the urethra from the commencement, and continuing to do so, whereby the cures were remarkably expedited. One of these cases was a child of nineteen months, where the wound did not require a second dressing. In another of three years, the child was out, and going about within eight days after the operation. A third was five years; and the other two of seventy years. The two old men were each out of bed, and walking about the room, within three or four days after the operation."

Mr. C. has performed the operation of lithotomy for thirty-six years, without in one instance declining to operate, however unpromising the case may have been; and he has given a list of seventy operations, (two in females,) performed on individuals of various ages, from one year and a half to eighty-five years, of which nine were unsuccessful. Of these latter, five, or perhaps six,

were so unpromising that few surgeons would have ventured to operate. In one, the patient, (a man aged sixty,) had laboured under symptoms of calculus upwards of ten years, and had taken to the use of spirituous liquors for relief. For four months previous to the operation, his sufferings had been without intermission, accompanied with a constant discharge of bloody, fœtid, puriform matter, and occasional attacks of epilepsy. Of course it would not be fair to compare Mr. C.'s success with that of other surgeons.

It is but justice to Mr. C. to mention that some of his successful cases were far from being promising. In one, the patient was in a state of the greatest emaciation and debility; every five minutes he was straining to pass his urine, which seldom exceeded a tea-spoonful at a time. Upon examination there appeared a great bulging into the rectum, obstructing the free egress of the fæces. In another, the patient, along with the symptoms of calculus, had been for many years affected with dyspnœa, so as to prevent him from lying down in bed, with palpitation of the heart, cold extremities, &c. This case appeared so very unpromising that the surgeon of the infirmary refused to operate. On Mr. C.'s accession to the charge, he yielded to the man's entreaties and operated. It is remarkable that within a few days after the operation, his pectoral complaints in a great measure left him. A third had been affected for twelve years with cough, dyspnœa, and puriform expectoration, as also frequent attacks of nephralgia, followed by bloody urine, passing sand and small stones to the number of two hundred and seventy-four; and in addition to all these, had been for twelve months tormented with stone in the bladder. A fourth was paralytic of the left side.

One patient died tetanic, an extremely rare sequela of the operation. He was doing exceedingly well until the eighth day, when he was seized with a severe pain in his left heel, striking upwards with convulsive twitches. The spasms extended the following day towards the muscles of the neck, and he died three days afterwards.

—

79. *Tracheotomy, for the Removal of a Foreign Substance in the Trachea.*—This operation has been several times performed in this city, but, as far as we can learn, without success; indeed, the operation is so generally fruitless, that most surgeons, we believe, are disposed to decline operating. The following case, in which it was successfully performed by Professor Græfe of Berlin, will be read with interest.

"A girl, nine years of age, whilst laughing, suffered a bean of a large size to pass into the trachea, which excited at intervals a convulsive cough, which continually increased in violence. She was brought to the hospital thirty-six hours after the accident. Fits of suffocation alternated with attacks of exhaustion, and there was a severe pain beneath the upper part of the sternum, increased at each inspiration. Although it was feared that the bean had reached the bronchi, an incision, one inch in length, was made in the lower part of the trachea; the speech was immediately suppressed, and a quantity of bloody mucus escaped from the wound. This relieved the patient; nevertheless, the bean could not be discovered either by a probe or straight forceps introduced into the bronchi; trials which could not be repeated, because each time the mucous membrane was touched produced a violent attack of suffocation, attended with universal spasms. The patient was bled, had a dose of opium given to her, and a piece of gauze was placed over the wound. She had a tolerable night; but the next day the attacks of suffocation returned with such violence that her life appeared in the greatest danger. The incision was therefore prolonged nearly to the upper edge of the sternum, and again an attempt was made to pass a small pair of forceps into the bronchi, but it caused a recurrence of the spasms and a convulsive cough, during which the epidermis of the bean became visible, but which disappeared instantly before it could be laid hold of. It again showed itself, however, and was extracted; the length was nine lines by four and a half wide. All the bad symptoms disappeared; the wound healed

in about a month; the speech was restored, and nothing remained but a hoarseness."—*London Medical Gazette, Vol. I.*

—

80. *Case of Hydatids of the Liver cured by an Operation.* By M. MARTINET.—"A ship-painter, named Damenge, aged twenty years, of strong constitution, and who had enjoyed habitual good health, with the exception of some attacks of colic, fell from a stage on the 26th April, 1827, to a distance of ten or twelve feet, and was picked up insensible. On the next day, a slight yellow tint was perceived on his countenance, which soon spread over the whole surface of his body; but, as his health was not affected, he returned to work on the 28th of the same month. On the 30th he felt pain in the right hypochondrium, and he could not lie on either side in bed. The pain in his side was accompanied by a retraction of the corresponding testicle, to which were added thirst and fever. This state continued till the 3d of May, when he was received into the Hôtel Dieu.

"There was now very little fever—a slight yellow tint pervaded the surface of the body—tongue scarcely white—no head-ache—no pain in the right shoulder—constipation during the last four days. In the right hypochondrium there was a tumour of irregular form, but not lobulated, extending from the ensiform cartilage to the edges of the false ribs, (which were a little raised,) downwards to below the umbilicus. Pressure produced but little uneasiness, and the sense of touch discovered the presence of several bodies, somewhat hard, salient, unequal and pulsative. The pulsation was considered as *communicated* from subjacent vessels. In several points an obscure fluctuation was perceptible. Percussion elicited a very dull sound from the whole of the upper and right side of the abdomen, down as low as the right flank. On striking various points of the abdomen with one hand, while the other was kept steadily on the tumour, no shock was communicated to the latter. The application of the ear to the parts communicated no sound, but rather an absence of all sound. *Venesection—low diet.*

On the 4th May a very fine trocar was introduced into the part where fluctuation had been least equivocal, and a cupping-glass applied. A few drops of limpid fluid escaped by the aperture. During the succeeding days, the health of the patient improved and the icterus diminished. A caustic of potassa fusa was applied on the most salient point, under the false ribs—this was repeated on subsequent days. Mean time, the tumour seemed to get flatter and lessened in volume. On the 15th May the eschars fell off, and, on the 19th, the tumour opened spontaneously into the bottom of the wound, and discharged a great quantity of yellow fluid, containing numerous hydatids. The diameter of the opening was about half an inch. Three basins were quickly filled with this discharge, and innumerable hydatids of various sizes, up to that of an egg, (elongated in passing,) were disgorged with great diminution of the volume of the abdomen. The majority of these acephalocysts presented transparent coats, two or three in number, containing an aqueous fluid, which soon turned opaque on being exposed to the air. During the next few days there was a considerable discharge of hydatids, and the patient continued free from fever. Some mild fluids were injected from time to time, and returned nearly colourless. The hydatids that issued on the 23d of May were of a yellow colour, apparently tinged with bile. The tumour had greatly subsided, and a pretty tight bandage was kept round the abdomen. The injection returned this day, rather fetid in odour. *26th.* The injection returned much less fetid. In the course of the following days, an injection, composed of decoction of bark and solution of chloruret of lime, was employed, and produced some smarting pain. On the 5th June, a slight diarrhœa came on, which was remedied by a more restricted diet. On the 11th June, there could not be more than four ounces of injection thrown into the cyst; and, by the 22d of the same month, it was impossible to introduce any thing. *5th July.* A slight discharge of purulent matter takes place every day, and the wound is closing fast. On the 6th July, the discharge presented the odour of feculent matter; and, next evening, some

fragments of pease eaten at dinner were unequivocal in the discharge from the wound. From the 8th till the 20th of the same month, portions of undigested aliment presented themselves among the discharge, which was always of a stercoraceous odour. Sutures were tried to close the fistula, but they failed. On the 30th the patient left the hospital in perfect health, with the inconvenience only of a small stercoraceous fistula. In the early part of August he presented himself at the Hôtel Dieu, with the fistula completely cicatrized, and his health excellent.—*Medico-Chirurg. Rev. April*, 1828.

—

81. *Treatment of Burns with Cotton.*—This mode of treatment, which is frequently employed in this country, has been recently tried in several cases of severe burns in the Royal Infirmary of Glasgow, with complete success. I. H. Plymsoll, Esq. in his surgical report from that institution, relates some of these cases; and remarks, that the advantages of the treatment with cotton is so evident, that the practice has become established in the infirmary. The cotton has, he observes, "the power of accommodating itself more than the ordinary applications to those irregularities of surface which are generally occasioned by extensively deep burns, and, consequently, of being brought into more close approximation with the injured parts. Bandages can be applied with almost any degree of pressure, without producing irritation; an equability of pressure is, therefore, kept up on the whole extent of the injury, which has the effect of levelling irregularities, and of repressing the growth of exuberant granulations, and ultimately of effecting a regular and uncontracted surface. The skin which is formed under this treatment is not a smooth, continued skin, as in other cases, but possesses almost the same degree of mobility and elasticity, and those insensible indentations which are observed in the original skin. This method of treatment, therefore, is particularly advantageous in burns where the joints are involved, and also in burns of the face, and other parts which are exposed to view, as a cure is effected without restraining the motions of the joint, and without exhibiting the slightest deformity of the face. The granulations will sometimes become prominent, in consequence of a sufficient degree of pressure not having been kept up. In order to obviate this inconvenience, patent lint covered with sheet lead, may sometimes be substituted with advantage. Should this produce much irritation, however, cotton, moistened either with a solution of the sulphate of copper or chloride of lime, should be again applied, and with increased pressure: this will have the same effect, without being productive of any uneasiness to the patient. The great point, however, in this practice, is the continuation of the dressings, without which, all our efforts will prove inefficient. They should never be removed until it is absolutely necessary, either from the excessive discharge from the wound soiling the cotton, or the insupportable fetor which may arise from it: this last inconvenience, however, may be corrected by the chloride of lime. Many surgeons have attempted this practice, but, ignorant of the necessity of continuing the dressings for several days, have been quite unsuccessful. The reason of this is obvious:—The cotton adheres with such tenacity to the raw surface of the wound, that, in removing the dressings daily, it cannot be accomplished without producing a considerable degree of irritation, and disturbance of the restorative process. It is of importance to observe that, when a part of the dressings are soiled, it can be taken away without removing the whole of the dressings. In the cases which have been treated in this infirmary, the dressings have been removed about once in six or eight days on an average."

—

82. *On a Peculiar Species of Traumatic Delirium.* By M. Dupuytren and M. Helis.—It is very justly observed, "that it is not merely sufficient to prepare a patient for a surgical operation, and to perform that operation adroitly; the more difficult part remains—the subsequent treatment. The moral and physical shock of an operation predisposes a person peculiarly to those accidents which naturally arise from the wound, and the judgment of the practitioner on

these occasions, is often of more importance to the patient than his manual dexterity while the knife was in his hand. There are still some disciples of Frêre Jacques in the surgical world. 'I have cut you for the stone—may God cure you.' If trifling injuries and operations are sometimes followed by the most serious constitutional disturbance, how careful should we be after great operations, to guard the patient against every source of supervening disease! Sometimes we see deep-seated inflammation arise in an organ or part to which the knife has been applied—and the sympathetic fever kindled up destroys the patient, when success seemed certain. At other times, a rigor announces the formation of matter in some vital organ, when the preceding fever was so masked, or so trifling, as to throw the surgeon off his guard. In other patients, the nervous system becomes highly irritable after an operation, and spasms or tetanus itself ensue. In some, a species of delirium succeeds the operation, which is of singular frequency, and by no means devoid of danger. Obscure in its causes, variable in its march, but alarming in its symptoms, traumatic delirium is rarely fatal, if treated judiciously and energetically." Seven cases are detailed, selected from a great number that have occurred in the wards of M. Dupuytren.

"Case I. A young man from the country was operated on by M. Dupuytren in the month of June, for sarcocele of large size. He was much afraid of hæmorrhage, and kept himself in a fidgetty state all the day after the operation. On the third day he was still more anxious, and he was irritated by every motion, gesture, or word of the neighbouring patients. Soon afterwards he complained of pain in his limbs and in his chest. His eyes became animated—his breathing hurried—he demanded food—and insisted on getting out of bed. In short, he was evidently delirious. His cries, the sparkling of his eyes, the immobility of the pupils, the perspiration on his face, the calm and regular pulse in the midst of this commotion, convinced M. Dupuytren that the patient was affected with nervous delirium, (delire nerveux.) Nevertheless he examined the chest, of which he so much complained, and found no disease there. A few drops of laudanum were immediately thrown up the rectum, and the patient was secluded from all visitors, so as to be kept quiet. In half an hour the patient fell into a profound sleep, from which he did not awaken till the succeeding day, when he was completely tranquil. No accident afterwards occurred.

"Case II. An old man was operated on for hernia by M. Dupuytren, and was put to bed in the most promising state. In a few hours afterwards, it was discovered that he had torn open the wound, in a fit of delirium, and actually lacerated some portion of intestine, which he had strained down! He died in terrible torments, from the supervening peritonitis.

"Case III. A stone-mason fell from a stage, and luxated the left femur. He was taken to the Hôtel Dieu, and M. Dupuytren reduced the bone. The next evening the patient was found in a state of alarming agitation; his eyes glistening, injected, and red; face flushed, and covered with perspiration. He vociferated aloud; tried to tear off the bandages; and endeavoured to escape, as he said, from the hands of justice. In the midst of this disorder of the senses, the pulse was regular, full, and of natural frequency; the skin cool. The sister of the ward, accustomed to these accidents, immediately administered laudanum in injection, and tranquillity was quickly restored, without any return of the nervous delirium."

This disease has been considered by most surgeons as inflammatory, and consequently has been treated by wrong measures. "M. Dupuytren thinks, that if left to itself, it would only produce a temporary exhaustion; but in the mean time irreparable injury might be done to the wounds produced by accident or operation. It is of great importance to be able to foresee or predict the supervention of this curious nervous commotion, and the author thinks that by the following signs we may prognosticate its approach.

"If, then, within twelve, twenty-four, or forty-eight hours after a fracture, a luxation, an attempt at suicide, or a surgical operation, the patient appears in

unusually good spirits, with talkativeness, glistening eye, and quick movements; if he affect an unusual degree of courage and resolution, be on your guard! Do not irritate or excite him; keep him quiet, and exclude all but his nurses, as well as light and noise. Very soon he will assail you with all kinds of questions—he will flatter, menace, abuse, sing, cry, and give way to unceasing loquacity. This is not always the most innocent kind of insanity. Our author has known men in this state, get up in the middle of the night, seize some weapon, and commence a war of extermination on all within their reach. He has known others throw themselves out of the windows, or commit suicide in some horrible manner. The most remarkable phenomenon in these cases is the calmness of the circulation, and the total absence of any febrile symptom. It is a veritable mania, of short duration. He has rarely known it last longer than five or six days. The treatment is very simple. Quietude, security, some laudanum, by way of injection. M. Dupuytren prefers this mode of administering the remedy greatly to that by the mouth. He avers that, from six to ten drops, given in this way, produce more effect than triple the quantity, given by the mouth."—*Medico-Chirurgical Review, April*, 1828, *from the Repertoire Générale.*

—

83. *Nævus Maternus cured by Vaccination.* By WILLIAM YOUNG, M. D.—A girl, æt. three months, was admitted into the Glasgow Royal Infirmary, with a roundish tumour, nearly as large as a sixpence, on the right side of the chin. "It was considerably elevated above the surrounding skin, had a purplish colour, and appeared formed of blood-vessels. At birth, the tumour was only the size of a split pea.

"Around the border of the tumour, as well as all over its surface, minute punctures were made, and vaccine lymph freely applied. In ten days thereafter, the whole disease was involved in one pustule, but when this became incrusted and was thrown off, there still remained a dark-coloured, prominent, and diseased surface. Another suppuration succeeded; and a third; when at the end of five weeks a complete cure was effected, no trace of the disease remaining, nor mark, further than what follows vaccination on a healthy part.

"This cure was hardly completed, when another little child was presented in private practice, with a nævus advancing rapidly, and occupying the middle and edge of the upper eyelid. The same process was followed, with very similar results. A cure was effected, but after a very tedious festering and ulceration. Indeed, it appears evident that nothing further is required to effect a cure, than to institute a process of suppuration, by cow-pox, by caustic, or by any thing else. As the most gentle of all these means, vaccination is entitled to a preference. But when this has been used in the common way, and for the ordinary purpose, and before a mark of this kind has excited much attention, I am inclined to think that an *antimonial plaster* would constitute by far the best substitute. I am sorry that no case has as yet occurred to give me an opportunity of making the experiment."—*Glasgow Medical Journal, February*, 1828.

—

84. *Successful Ligature of the Axillary Artery.*—Dr. G. C. MONTEATH relates in the first number of the *Glasgow Medical Journal*, a case in which the axillary artery was successfully tied in a man aged twenty, whose right arm had been run over by the wheel of a heavy coach, so as to have bruised it from near the shoulder to the wrist, but without any laceration of the skin. The wheel had crossed the arm about half way up the biceps muscle. Violent pain and swelling followed, and on the twentieth day almost all the integuments and cellular substance on the inner and under sides of the arm and forearm had sloughed, leaving the muscles as if they had been dissected. In some places the periosteum of the humerus was exposed, and the median nerve was visible at the elbow. The veins at the bend of the arm were exposed and dead, and the biceps tendon quite bare. In the evening a sudden hæmorrhage ending in syncope took place from the arm just where the wheel had crossed it, in all pro-

bability from the humeral artery having given way. The heat of the extremity was natural, and the radial pulse perceptible, though very small; some days after the accident no pulse could be felt, but it had returned. The next day Dr. M. saw the patient, and determined to tie the axillary artery. Accordingly he applied a single ligature on the artery, two inches above the tendon of the latissimus dorsi. The ligature came away on the eighteenth day, and the wound of the arm caused by the scalpel healed in six weeks, but that produced by the injury did not cicatrize until fifteen months after the operation.

—

85. *Case of Pulsating Tumour of the Scalp, from Dilatation of the branches of the External Carotid Artery.* By G. M. Maclachlan, M. D.—A discharged soldier, æt. 30, presented himself to Dr. Maclachlan, with a soft, pulsating, and somewhat elastic swelling of a varicose appearance, occupying "the course of the temporal, posterior auris, and occipital arteries and their principal branches; each branch terminating by a tortuous extremity. These swellings could be made partly to disappear on pressure, but on its removal they speedily regained their former volume. They pulsated throughout their whole extent, and the pulsations were synchronous with those of the heart. By pressing on the common carotid, the pulsations ceased all along the swellings; and, by intercepting the flow of blood through the temporal or posterior auris, the throb was interrupted in corresponding parts of the tumour. They were not painful on being handled, but he complained much of the torture he had experienced for the last two months, from the throbbing, which often deprived him of rest for nights together, and, as he said, made his existence miserable to him. The integuments covering the swellings were of their natural colour; only at those points which were most prominent, they had a slightly bluish-red tinge.

"This *arborescent* tumour commenced in front of the ear, immediately over the zygoma, and quickly swelling out, it became of the size of a split lemon, lying transversely over the ear. It sent a process forwards on the forehead, communicating by a tortuous extremity with the supraorbitary twig from the internal carotid; a large process upwards to the crown of the head; and backwards, the main body of the tumour communicated with the puffy swellings of the posterior auris and occipitalis, which latter vessels gave a varicose feeling to the scalp over the left side of the occiput.

"The largest and most prominent part of the tumour was immediately over the ear: at this point, the throbbing was very violent, and the integuments being very thin and rather pointing, it threatened ere long to burst."

Ten years previously, he had the temporal artery opened, and a small aneurismal tumour formed at the point of incision, for the cure of which, the artery was cut across, lower down; but this not succeeding, a ligature was applied to the vessel. The tumour disappeared only for a time; on its return, it was but small, and gave him no uneasiness.

Pressure had been tried, and gave him so much pain, that he refused to submit to it, and Dr. M. determined to take up the vessels singly, and if that failed, to tie the common carotid. Accordigly, he laid bare "the temporal artery as it emerges from the parotid gland: but on dividing the fascia-like substance which kept it in situ, it shot forth through the opening in the form of a loop, in calibre larger than a goose-quill; thinner in its coats, and, if possible, more diaphanous than a vein; and thrilling violently at each pulsation. A ligature was applied to this loop; the wound was brought together with adhesive plaster, and, for additional security, a firm compress and bandage were applied. It was now evident that the vessel was diseased at the point of ligature, and the propriety of tying the common carotid hence became obvious. Pulsation had, however, ceased in the anterior and central portions of the tumour, which felt flaccid and doughy, showing that this plan of treatment would, in all probability, have been successful, so far as the vessels of the scalp, at least, were concerned, could the state of the arteries have been trusted to."

The next day the common carotid was tied; immediately on which the vari-

cose tumours of the head became devoid of pulsation and felt flaccid, although their prominence was but little diminished. The day after the operation, he was seized with severe pain in the chest, and notwithstanding very active depletory measures were adopted, he died on the fourth day.

Dissection, fifty hours after death.—The weather being very hot, putrefaction had made considerable progress. The viscera of the abdomen appeared healthy. "Some straw-coloured, puriform matter was found in the anterior mediastinum: about a pint of thick, grayish, mucopurulent matter in the right cavity of the pleura, and a small quantity of bloody extravasation into the left. The pericardium was unusually devoid of fluid—the heart large and flaccid. The wound, which had adhered throughout its whole extent, by the first intention, had partially re-opened from putrefaction. The carotid, the par vagum, and jugular vein appeared as if they never had been disturbed—nor was there the least appearance of pus around the ligature. On slitting up the artery, and cutting through the ligature at the same time, (the ligatured portion having been previously removed from the body,) small but soft clots were found above and below the ligature, and the artery remained puckered from the recent deposition of lymph. Its inner coats were divided as with a knife, while its external was found dense, strong, and entire. Below the ligature, the inner coat of the artery was of a vermilion red colour, even that of the thoracic aorta bore equal marks of inflammation, but at the bifurcation it was of its natural aspect; that portion also of the aortic arch nearer the heart than the coming off of the left carotid, was healthy. The carotid in the neck was of its usual size, strength, and thickness; but on examining its branches on the head, they were found to have degenerated into dilated tubes of extreme thinness and transparency; which, apparently yielding to the impetus of the blood, had become elongated, contorted, and ultimately convoluted on themselves, so as to form by this species of doubling, the tumours which constituted this singular disease. These tumours felt like placenta, and to the eye, the larger portion immediately over the ear looked precisely like a bundle of earth worms coiled together."

Dr. M. regrets that he could not investigate more particularly this unusual disease of the arterial system, nor ascertain whether the internal carotid was affected, and thus giving rise to the epileptic fits to which the patient had recently become subject.

Pelletan is the only author who has distinctly described this disease: in his Clinique Chirurgicale, tom. ii. he relates two cases.—*Glasgow Medical Journal, February*, 1828.

—

86. *On the Causes of the Fatal Termination of certain Cases of Bronchotomy.*—Dr. Cullen, in the number of the *Edinburgh Medical and Surgical Journal*, for July, 1827, called the attention of the profession to the physiology of coughing, and to the danger which necessarily attends on a copious secretion of mucus from the bronchi when an opening has been made in the trachea. For, to produce full and vigorous coughing, so as to clear the minute branches of the bronchi of their fluid secretion, the expiratory muscles must for a certain time act in opposition to the constrictor muscles of the glottis. When, by this antagonism, the former have acquired sufficient force, the latter are suddenly relaxed, and *in the moment of their relaxation* coughing takes place, and mucus or pus is expectorated along with the air thus violently expelled; but when an opening is made into the trachea, expectoration immediately becomes difficult, for the expiratory muscles have no longer their antagonist constrictors of the glottis to act against. They cannot therefore acquire sufficient force to produce that strong current of air which is at least highly favourable to expectoration. A patient, therefore, after bronchotomy, cannot perform the act of coughing, properly so called. He can only expire with a force proportioned to the quantity of air he can take into the lungs.

The truth of these observations is borne out, he says, by what he has noticed in all the cases in which he has seen bronchotomy performed. He has uniformly

observed that expectoration immediately became difficult after the operation. The patient could not drive the expectorated matter through the canula, for the current of air was too weak; and hence he has seen death ensue from a small quantity of blood getting into the trachea.

These considerations have led him to some important practical views, and enable us to explain the fatal termination of many of the recorded cases of bronchotomy. In the *first* place, the canula employed ought always to be large. If it be small, the breathing will be difficult. During the inspiration, blood will be sucked into the trachea from the edges of the wound, and a quantity of air sufficient for the purposes of respiration will not be admitted to the lungs. *Secondly.* When inflammation exists in the minute branches of the bronchi, attended with plentiful secretion, the introduction of a large quantity of air is absolutely necessary for expectoration. A small quantity of air cannot acquire sufficient force to bring up along with it the secretions of the bronchi. We can explain on the same principle why bronchotomy is so rarely successful when diseases have extended into the minute branches of the bronchi. After the operation the expectoration becomes more difficult, from the constrictor muscles of the glottis being rendered useless. Mucus accumulates more and more down the air-passages, and the patient dies gradually suffocated. In severe cases of inflammation of the lungs, the expectoration is commonly suppressed a short time previous to death, but it does not cease to be secreted; it is only not excreted; for, in proportion as more and more of the lungs becomes useless for the purposes of respiration, of course, a less quantity of air can be introduced at each inspiration, till at last the quantity is insufficient for a forcible inspiration or coughing, then, of course, the minute branches of the bronchi continue loaded, and the patient is suffocated.

From these statements, Dr. Cullen draws the following practical conclusions:—1st. Bronchotomy should not be performed in cases where inflammation and copious secretion exist in the minute branches of the bronchi, at least such cases are most likely to terminate unfavourably. The operation if performed, may relieve the breathing for a while, but it may occasion in a short time a suppression of the expectoration.

2d. We should always make use of a large canula for the sake of permitting free expiration, the only substitute for coughing, which the patient can no longer effect.

3d. *The operation of bronchotomy is not in itself unattended with danger;* and even slight wounds of the trachea may be fatal from their effect in suppressing the excretion of the mucus of the air-passages.

4th. The absence of expectoration may be either very favourable or unfavourable to the performance of bronchotomy. It is a very favourable symptom when it depends on the sound state of the mucous membrane of the bronchi. It is most unfavourable when it depends on such a closure of the rima glottidis that too small a quantity of air can be introduced to effect coughing.—*Ed. Med. and Surg. Journ. Jan.* 1828.

—

87. *Treatment of Ulcers of the Leg in Old Subjects.*—"Slight scaly induration of the cuticle with erosion or superficial ulceration on the lower part of the legs, is very common in old age, is always obstinate, and often incurable. In this affection, M. Lisfranc has lately found the following treatment successful. The crusts having been detached by emollient poultices, a compress spread with common cerate, and having a central opening, was applied so as to leave only the sore exposed, and upon this opening was laid a thick pledget of lint, soaked in a weak solution of chlorate of soda, (à trois degrés.) By perseverance with this dressing, a complete cure was generally obtained in a week, or a fortnight at most."—*Journal Gén. de Med. Oct.* 1827.

—

88. *White Swelling of the Elbow Joint, with removal of the Elbow Joint.*—In our first number, p. 223, et seq. we offered some remarks on the excision of

carious joints, and gave three cases in which the operation was performed by Mr. Crampton, of Dublin. It appears that Mr. Roux has also performed this operation three times, all of which have been successful. "A girl, nineteen years of age, bearing the scars of an old scrofulous affection upon the back of the left hand, was admitted at La Charité with a white swelling of the elbow joint, with great enlargement of the soft parts, caries of the extremities of the bones, and several fistulous openings giving vent to a sanious discharge. The constitution of the patient had not suffered in any great degree; nevertheless it was evident that the disease could only be got rid of by amputation of the arm, or removal of the diseased portions of bone. M. Roux preferred the latter, and the operation was performed December 9th.

"The patient being placed upon her belly, and the diseased arm brought from the trunk: two incisions, two inches in length, were made along the external and internal edge of the humerus parallel to the axis of the limb; these incisions reached as low as the joint. A transverse incision across the posterior part of the articulation joined the two former, and from these three incisions a quadrilateral flap resulted, which was detached from below upwards. The humerus being thus exposed, was isolated by means of the knife from the soft parts to which it was attached; a thin piece of wood was inserted between these parts and the bone, which was then sawn off just above its tuberosities. The lateral incisions were then prolonged below upon the edges of the forearm for the space of two or three fingers' breadth; a flap similar to the first was detached from above downwards; the upper extremity of the radius was separated from the soft parts and from the ulna, and the radius was removed above its tuberosity. The extremity of the ulna was then isolated, preserving the insertion of the brachialis anterior, and the extremity of the bone was sawn off immediately below its articular surfaces; by this contrivance the lower insertions of the brachialis and biceps were preserved. The median and radial nerves included in the mass of the soft parts anteriorly were not touched, but the cubital nerve was cut, and even lost a portion of its substance. The wound produced by this operation was large, deep, and formed in indurated and diseased tissues. The edges were brought together, and maintained by fifteen points of interrupted suture; lint spread with cerate was applied upon the wound, and fixed there by compresses and a bandage. The limb was placed in a hollow splint of tin.

"On the day of the operation, the patient experienced violent pain, and could not sleep on the following night. On the 10th, there was pain in the epigastrium, increased on pressure; intense head-ache; violent thirst; white, moist tongue; pulse moderately frequent, but hard.

"Low diet and diluents were ordered.

"12th, (fourth day after the operation.)—The wound was dressed. The bandages were scarcely moistened with a bloody and purulent serum; very little tumefaction of the wound. The sutures were removed, and the edges appeared united; the incisions were marked by straight lines of a red colour.

"Simple dressing. Jalap, with two drachms of syrup of poppies, in the evening.

"Suppuration soon became more abundant, but bore no proportion to the apparent extent of the wound; the radial and cubital incisions were separated more considerably, the one at its upper, the other at its lower extremity, and discovered the opening of a sinus, which evidently led into the cavity resulting from the removal of the bones. Excepting this, every thing improved from day to day: the appetite revived, the sleep was good, and the patient recovered her spirits. After employing sticking plaster for some days, simple cerate was employed, and two pasteboard splints supplied the place of the tin case.

"January 10th.—The suppuration is good, but its quantity has not much diminished; a portion of it still comes from the bottom of the wound. The transverse incision is in a great measure healed; the extremities of the bones of the forearm and arm do not meet; the cubital edge of the ring finger has regained

its feeling, but the little finger may be pinched without the patient's being at all conscious of it. The patient's health is perfectly good.

"This is the third operation of the kind M. Roux has performed, and they have all succeeded. One of the former patients died afterwards of phthisis; the other is still alive. No callus is formed at the extremities of the bones, they seem to be replaced by flexible fibro-cellular tissue: the forearm is moveable; it cannot be, indeed, bent or straightened at pleasure, but the patient gives it these motions with the assistance of the other hand. This man is a grinder by trade, and finds the limb very useful."—*London Medical and Physical Journal, April*, 1828.

—

89. *Breaking down Calculi in the Bladder.*—M. Amussat has laid before the Academie Royale some observations upon those cases in which it may be prudent to attempt to break down the calculus in the bladder, and those in which the operation for lithotomy must be had recourse to. If the patient is not nine years of age, the operation will be necessary, as the urethra will not, before that period of life, admit the necessary instruments for breaking down the stone. If the stone is of a large size—if the bladder, the prostate gland, or the kidnies, are diseased; or if any of the vital organs are diseased, and if the patient has for a long time been afflicted with stone in the bladder, the operation of lithotomy will be necessary. The surgeon should only have recourse to breaking down the stone in the bladder when the patient is in good health, and is not seriously affected by the symptoms produced by the presence of the urinary calculus. M. Lisfranc, however, mentioned the case of a child, of seven years of age, in which the stone had been broken down with success by M. Civiale. The same operation had also been performed upon a patient, notwithstanding he laboured under disease of the prostate gland.—*Archives Gen. Jan.* 1828.

—

90. *Medullary Sarcoma of the Testicle.*—Mr. Earle relates, in the *London Medical Gazette*, Vol. I. No. 10, two cases of this disease, in both of which he extirpated the testicle, and there is reason to hope that the cure is complete.

MIDWIFERY.

91. *Case of Indurated Enlargement of the Uterus, successfully treated with Iodine.* By R. A. Thetford, M. D.—J. R. æt. forty, costive habit, accustomed to use purgatives constantly and in large doses, had not had any evacuation from the intestines for seventeen days, though large doses of purgative medicines had been taken—for the last three days her stomach rejected every thing except a little porter—head-ache—total want of sleep—pulse 108 and very feeble—abdomen enlarged and tender on pressure, particularly in the epigastric and hypogastric regions—urine passed with pain and mostly by drops. Had borne one child when about sixteen years old. The bowels were relieved by enemata, followed up by oil, &c. and her general health and strength improved, but the tenderness and pain in the hypogastric region continued, also the pain in passing urine, which still came away in small quantities at a time. The pubic bones were very sensitive to the touch, and a tumour was felt above the symphysis. The patient acknowledged that there was a hard tumour in the vagina, which was very painful, and had gradually increased in size without any discharge from it. Menstruation had ceased for some months. On introducing a finger into the vagina, a projecting substance was felt, which was easily ascertained to be the os uteri, somewhat enlarged, and firmer than natural; beyond and connected with which, a large tumour of osseous hardness opposed resistance. The tumour was the uterus of great size, and in a state of induration. Dr. T. ordered alterative doses of corrosive sublimate, with pills of conium and hyosciamus, with strict attention to the bowels. This treatment was persevered in for thirty-

six days; but although her health amended, neither the size or hardness of the uterus was reduced, nor the pain of the pelvic bones much alleviated. It was therefore determined to try the tincture of iodine, which was commenced on the 14th of June, in doses of seven drops three times a day, in a wine-glassful of cold water, and the dose was gradually increased to ten drops, every medicine being discontinued, except castor oil when required. Her appetite speedily improved; intestinal evacuations in general sufficient; urine passed in greater quantity at a time, and with diminished pain; rapidly progressive absorption of the diseased substance of the uterus; periodical return of the catamenia. On the second of August she was perfectly restored to health and continues so.—*Transactions of the King and Queen's College of Physicians in Ireland, Vol. V.*

—

92. *Case of Double Uterus, with Double Impregnation.*—An extraordinary case of this description has been related by Dr. Geiss, of Traffurth near Earfurt. "The woman had been in labour for two days, when he was requested to attend her. He found her a stout, healthy female, of middle stature. The labour-pains were confined to the right side. On the right side, the womb reached as high as the thorax; on the left it did not extend above the navel, and inclined forwards and laterally. The external parts and os uteri were properly constructed, and the shoulder of the child could be felt behind the membranes. The operation of turning was performed, and a healthy female infant delivered, upon which the right side of the abdomen sunk in while the left continued prominent. In an hour the labour-pains recurred, and on examining the state of the parts, Dr. Geiss found, that after passing the os uteri, the finger came in contact with a membrane distended by fluid, and protruding through an annular opening towards the left side, while the navel-string of the child already delivered, extended upwards into a cavity like the uterus in ordinary circumstances. On farther examination, he found the belly of a second child presenting at the accessory orifice, and therefore performed the operation of turning, and brought into the world a stout still-born male child, which was soon recuscitated. As no placenta followed for some time, he proceeded to assist the separation of them, and had then an opportunity of completely satisfying himself that his patient had a double uterus. The right placenta came away first, and the right womb contracted vigorously; the left placenta followed, but the uterus of that side contracted slowly, and the woman therefore lost a good deal of blood. Two months afterwards the mother and both children were in good health. Two years before, she had brought forth a single child, and the labour was tedious, and required manual aid to accomplish."—*Edin. Med. and Surg. Journ. April*, 1828, *from Rust's Magazin, Vol. XX.* 568.

—

93. *Hints respecting the Treatment of Lacerated Perinæum.*—"The known fact, that mucous surfaces do not readily adhere when abraded or inflamed, forms a very striking pathological distinction between them and serous surfaces. This, it should seem, does not arise so much from peculiarity of structure, as from the circumstance of the presence of mucus, which will not mix or amalgamate with the fibrin of the blood, and therefore prevents the formation of that bond of union which is essential to adhesion. Hence we see why it is so difficult to effect union in the operations on the soft palate. The mucus of the nares constantly flows upon the incised surfaces, and prevents the process. A knowledge of this fact has not, to my recollection, been applied to the treatment of laceration of the perinæum, one of the most distressing accidents that occurs in practice to a young accoucheur.

"I have observed that the mucous discharge, which is constantly running over the breach of continuity, is the cause why these injuries are so very difficult to heal. I would recommend in such cases that the patient be kept as much in the prone position as possible, and that a wide slip of lint, well smeared with bals. copaib. be placed carefully over the whole of the laceration. From what I have seen in slight cases, I have but little doubt that it would succeed in those of greater extent."—*Lond. Med. Rep. and Rev. May*, 1828.

94. *Assistance afforded by the Stethoscope in Doubtful Pregnancies.*—Our readers are already acquainted with the interesting and important discovery of M. Kergaradec, of Paris, of the unequivocal signs furnished by the stethoscope of some cases of otherwise doubtful pregnancy. Dr. PROBART relates, in the *London Medical Repository and Review* for May last, three cases in which he detected pregnancy by the stethoscope. The first case was that of a maid servant, who had not menstruated for five months, having, she believed, taken cold the last time she was unwell. She complained of pain and swelling in the hypogastric region; her bowels were costive; she had no appetite, and felt no general uneasiness. The hypogastrium, felt through the dress, was tense and unyielding, and the patient affirmed that very slight pressure occasioned her considerable pain. Dr. Probart suspected pregnancy, but she denied the possibility; on examination, however, with the stethoscope, the "*bruit placentaire*," was instantly detected about midway between the umbilicus and superior anterior spinous process of the ilium; and between the former and the pubis, the heart's contraction in the fœtus, beating in frequency double that of the mother. The girl still denied she was pregnant, but on being remonstrated with, acknowledged she had "kept company" with a man-servant in the house. She was shortly after delivered.

The second case was that of a married woman of emaciated appearance, the mother already of two children, who consulted Dr. P. on the state of her health, which another gentleman in the profession had represented as hopeless, from an opinion that she was "in a deep decline." There were considerable difficulty of breathing, some cough, occasional perspirations and debility. By means of the stethoscope, however, Dr. P. found the lungs healthy, but the heart was beating with a vastly augmented sound, and audible all over the chest, as well posteriorly as anteriorly, but unaccompanied by any preternatural impulse. Dr. P. concluded, therefore, that the above symptoms were the consequences of simple dilatation of the heart, and a suitable treatment was adopted, from which the poor woman derived so much relief, that she believed herself cured. She very soon again became alarmed at a gradual increase in the size of her belly, which her neighbours persuaded her arose from dropsy; and she, therefore, again presented herself to Dr. P. Being engaged at the time with other patients, he did not enter into a minute inquiry; and, taking it for granted that there was effusion, a natural sequela of the affection of the heart, he prescribed a combination of aperients and diuretics. Her size still increasing, she determined to pay him another visit; and, now doubting the accuracy of his former hasty diagnosis, as to the effusion, he auscultated the abdomen, and in a few minutes discovered the sounds of a fœtal circulation. Willing as this person evidently was to believe the information he now communicated, she could not be convinced of the fact, as she had not felt the motion of the child, nor had experienced any of those sensations that marked her former pregnancies. Before her confinement, however, which happened about ten weeks subsequently, she was satisfied of its truth, and had made the usual preparations.

Case III.—"A young woman was admitted under my care, into the Suffolk Hospital, supposed to have ovarian dropsy. In the hurry attendant upon admitting patients I made no examination at the moment, but desired the woman to remain in bed the following morning until I had made my visit, with a view to more accurate observation. The account given of herself was, that she had suffered with her present complaints for two years, during which time she had been severally treated by a physician and two surgeons. There was apparent tenderness in the hypogastric region, upon slight pressure; and a spherical tumour was very palpable, extending from the pubis to the umbilicus, which so very nearly resembled the pregnant uterus about the seventh month, that I, without hesitation, put the question as to the possibility of pregnancy. The girl gave me the most solemn assurances it could not be, and said that, in consequence of her appearance, she had more than once in the course of the last

two years been so charged by her neighbours; and that so lately as only a fortnight ago, this report having again spread through the village, she, for the satisfaction of her mother and friends, submitted to an examination by the medical gentleman who attended the parish, and who then declared that she was not pregnant. Still, however, very doubtful of all this, I had recourse to the '*Experimentum crucis*,' when my suspicions were immediately realized in the existence of a loud '*bruit placentaire*,' with that still less equivocal sign, the action of a fœtal heart. The girl, notwithstanding the positive manner in which I now insisted upon her situation, persevered for a long time in affirming her innocence; but ultimately she acknowledged 'an acquaintance' with a young man in the village: she was nevertheless sceptical on the score of pregnancy, as she continued to feel exactly as she had done for two years back. Her mother called at my house the next day, before going to see her daughter at the hospital, to hear my opinion of the latter, and manifested a disposition to quarrel with me on hearing the unwelcome tidings I communicated. The patient returned home with her mother, and was, a month after, delivered of a still-born child.

"There cannot, I think, be any doubt that the subject of this example was ignorant of her situation; for it is quite true that she had been ailing for two years; that she had menstruated but once during that time, which event appears to have happened a short time before the 'acquaintance,' and that the apothecary had declared her case not to be one of pregnancy."

MEDICAL JURISPRUDENCE.

95. *Case of Poisoning by the Milk of a Poisoned Animal.*—"An old woman sold goat's milk, the produce of two goats, an old and a young one, to many of the inhabitants of Aurillac. On the 13th of July, 1827, sixteen persons, soon after having drunk some of this milk, suffered acute pains in the stomach, with nausea, and general distress and uneasiness: in some of the individuals the epigastric pains were very intense, they vomited porraceous and bloody matter; these symptoms were soon followed by violent head-ache, lassitude, pains and cramp in the extremities, with all the symptoms of cholera morbus. A mild plan of treatment, consisting of emollient and mucilaginous drinks, succeeded in restoring all the patients in twenty-four hours.

"On inquiring into the state of the two animals, it was found that the old goat had drunk some sour broth, which had been left in a copper vessel on the 12th. On the 14th it refused to eat; it tottered in its gait, and a thick and viscid saliva flowed from its mouth; the abdomen became tumid and painful; the pulse small. These symptoms increased, and the poor creature died on the 16th. On opening the body, the small intestines appeared to have undergone violent inflammation.—The young goat had not drunk any of the broth, and was in good health."—*Journal Général de Médecine, Nov.* 1827.

96. *Presumed Violation of a Child.*—The following question was submitted to the Faculté de Médecine, by the legal authorities:—Whether it was possible for an infant of fourteen months old to be violated? "Their opinion was also requested upon the facts stated by a pupil of the Hôpital Beaujon, who reported that "the hymen was torn, and that it appeared to have been recently ruptured." As, in a legal point of view, any forcible attempt to perpetrate such a crime is as criminal as its consummation, the faculty confined themselves to one point of inquiry, namely, to ascertain whether the appearances of the organs of generation justified the suspicion that violence had been inflicted. The certificate of the surgeon who first examined the infant stated that the hymen was ruptured, that the rupture *appeared* to be recent, and that the labia *appeared* to be inflamed. The commissioners observe, that every year, particu-

larly during cold and damp weather, female infants are taken to the hospital with a purulent, and sometimes bloody discharge from the vagina, accompanied by tumefaction of the parts, ecchymosis of the labia, and "solution de continuité de l'hymen." The children in this state are usually feverish, and out of health in other respects. Many of these little patients have been presented at the consultations under the impression that some improper violence had been inflicted. But a variety of circumstances tended to prove that there was no foundation for such suspicions. Several of the infants were still at the breast, and had never been left by their mothers; and the number of such cases appeared to prove the existence of some general cause which had acted simultaneously upon many different children.

"In reference to the facts stated in the certificate, it was observed that the hymen may be ruptured in many different ways, and that it cannot be determined by any examination *how* the rupture has been caused. The inflammatory symptoms, ecchymosis of the labia, and discharge from the vagina, cannot without some collateral evidence, be asserted to arise from any criminal attempt. The report from the Faculté de Médecine, therefore, merely certified that the child laboured under a 'catarrh' of the external genital organs. They did not venture to give any opinion as to the cause of the complaint.

"In more than one instance we have known much anxiety excited by the appearance of symptoms in young female children, resembling mild gonorrhœa. The brief relation of a case which occurred a short time ago in our own practice, will show the necessity for much caution on the part of the practitioner. A girl, nine years of age, was attacked with the symptoms above enumerated: discharge from the vagina, swelling of the labia, and inflammation of the parts. In this state she was presented to a very young surgeon, who injudiciously declared that the child must have been the subject of some improper violence. She was repeatedly and severely questioned by her mother, and at length an accusation was extorted from her against a young man residing in the same house. He fortunately, however, was known to have been absent on the particular days mentioned by the child. Being still urged by her mother, she afterwards told the same story of two or three other men; and, when we questioned her upon the subject, she confessed that no part of her story was true, but that she believed her mother 'wanted her to find out somebody.'

"We were consulted in a similar case some years ago, in which a criminal prosecution was about to be commenced against a man upon very slender suspicion. In this instance the child had afterwards frequent attacks of the same kind at very distant intervals. Cooling lotions and mild aperients have always succeeded in removing the inflammation and discharge."—*Lond. Med. and Phys. Journ. May*, 1828, *from the Repertoire d'Anatomie, Tom. IV. No.* 4.

—

97. *Death caused by the external application of Opium.*—The application of opium in large quantities to the skin, when deprived of its cuticle, is a practice by no means free from danger. An instance is related in the *Edinburgh Medical and Surgical Journal for April*, 1828, in which deep coma was induced by the application of an opium poultice to the scrotum, previously deprived of the cuticle by a blister, and which would in all likelihood have proved fatal, had not one of the patient's friends called accidentally to see him, and discovered the cause of his state of sopor. In the *Journal de Chimie Medicale for April*, 1827, a case is recorded which proved fatal, although the skin was not deprived of its cuticle. A soldier, thirty-two years of age, was attacked with phlegmonous erysipelas of the fore and outer part of the right leg, on account of which a linseed poultice, moistened with *fifteen drops* of laudanum, was ordered to be applied to the limb. Next morning he was found in a state of deep sopor, with the face pale, the eyelids tremulous and half open, the pupils contracted, the lips distorted, the muscles of the face affected with spasm, and those of the limbs with convulsions. The surgeon having remarked a strong odour of opium, as well as a yellow coloration of the bandage which enveloped the limb, he had it removed, and

found not only the bandage but all the compresses soaked with laudanum, which was flowing copiously from the poultice. The attendant whose duty it was to make up the poultice, had left it in charge to an hospital servant without telling him what quanitity of laudanum was to be used, and the latter had ignorantly used about an ounce. Antispasmodics, emetics, and sinapisms, were resorted to but in vain. The convulsions increased, the pulse became more and more feeble, and the patient died. On inspection some red points were seen on the arachnoid, a strong opiate odour was exhaled from all parts, and the heart, stomach, and brain were in their healthy state. In the blood-vessels no trace could be found of the poison which had been absorbed.

98. *Cases of Poisoning by Belladonna.*—Two children ate a considerable quantity of the berries of the *Atropa Belladonna.* "The elder of the two on going to school immediately afterwards, burst out into immoderate and incontrollable fits of laughter, and constantly caught at objects which he conceived were before him. Subsequently was added to these symptoms an incessant, incoherent babble, with continual agitation of the body, fixed eyes, dilated and insensible pupils. This was above three hours after the berries had been taken. The physician who then saw him for the first time, administered an emetic, which brought away a large quantity of reddish matter containing fragments of the berries. After this tartar emetic was given, though not without great difficulty, as the lower jaw was spasmodically contracted. Notwithstanding repeated vomiting the symptoms went on increasing, the limbs were in constant agitation, the breathing high and croupy, the face red, and the incoherence constant. Purgatives were then administered, and afterwards vinegar. Four hours after the poison was swallowed the breathing had become stertorous, the skin cold, the face bloated, the pulse imperceptible. The child was then immersed in the warm-bath, and bled from the jugular vein to the extent of six ounces, with marked advantage. The muscular agitation was now broken by intermissions of profound sleep, in which, however, the patient was not permitted to indulge for twelve hours more. Next morning, (nineteen hours,) calomel was administered and caused several evacuations. In the afternoon the pulse again became almost imperceptible, the skin cold and pallid, and the warm-bath was therefore repeated and followed up by sinapisms and assafœtida injections, in consequence of which the pulse and temperature were restored. Four hours afterwards these symptoms recurred, and were again successfully combated by the same means. An hour and a half after that, or twenty-nine hours and a half after the berries were eat, the whole symptoms were much abated, and the child was sensible. From this time the amendment was rapid. But it was not till the third day that he could distinguish objects. Till then he was entirely deprived of sight: even a lighted candle held close to the eyes did not seem to make the slightest impression on the retina. For some time afterwards he was in indifferent health; and had occasional fits of slight convulsions; but he ultimately got quite well. The circumstances of the other case were precisely the same in every respect."—*Journal de Chimie Médicale, December,* 1827.

CHEMISTRY.

99. *On the Active Principle of Hemlock, (Conium Maculatum.)*—According to MM. Brandes and Gische, the best method of obtaining this vegeto-alkali, consists in digesting the fresh plant for several days in alcohol, filtering and evaporating the liquid, mixing the residue with water, and acting either by alumina, magnesia, or the oxide of lead; the whole is then to be evaporated to dryness, and the substance obtained acted upon by a mixture of alcohol and ether; the solution being evaporated to dryness, yields the principle now distinguished by the name conin, (conia.) This principle is said to possess de-

cided alkaline properties; its aqueous solution forms an abundant red precipitate with tincture of iodine. Half a grain of the substance will kill a rabbit, the symptoms being the same as those produced by strychnia.—*Bull. Univ. C. XII.* 253.

—

100. *On the nature of Labarraque's Disinfecting Soda Liquid.* From the researches of Mr. FARADAY, it appears Labarraque's disinfecting liquid contains a peculiar compound of chlorine, carbonic acid, and soda, the two latter being in the same proportion as in the common carbonate. Carbonic acid gas may be transmitted in large quantity through the solution without carrying off the chlorine; but stronger acids displace it readily. The chlorine is also displaced by the force of crystallization. The compound resists the action of boiling; not only is chlorine not disengaged, but very little chloric acid is generated. The liquid deteriorates, however, by keeping. In a portion of it kept in a well-stopped bottle for six weeks during summer, reaction was proved to have taken place between the alkali and the chlorine, some of the chlorate of soda and chloride of sodium having been formed.—*Journal of Science for July*, 1827.

—

101. *Preparation of Sulphate of Quinia, and Kinic Acid, without the use of Alcohol.*—"The following is the process of MM. HENRY and PLISSON. About two pounds of bark are to be coarsely powdered and boiled with water, acidulated with sulphuric acid in the usual manner. When the hot liquors are cleared, recently prepared, and moist hydrate of lead is to be added until the fluid is neutral, and has acquired a faint yellow colour; this must be done carefully, lest two much hydrate of lead be added. As the decolouration of the decoction is necessary, the liquid, if it remains turbid until the next morning, must have a little more hydrate added, and be re-filtered; but the operation is rarely subject to this inconvenience, being usually finished in a few hours. The yellow liquid contains a little kinate of lead, much kinate of lime, kinate of quinia or cinchonia, a little colouring matter, and traces of other substances. The washed deposite consists of colouring matter, combined with oxide of lead, sulphate of lead, and a portion of free quinia; and contains no sub-kinate of lead.

"The lead, dissolved in the fluid, is to be separated by a few drops of sulphuric acid, or a small current of sulphuretted hydrogen, and the filtered liquid is to be precipitated by adding caustic lime, previously mixed into a thin paste with water, until the earth is in very slight excess; in this manner the quinia is precipitated. The addition of sulphuric acid readily converts this quinia into sulphate, which may be obtained in very white and silky crystals. The fluid left after the separation of the quinia contains a kinate of lime almost pure. Being evaporated until of the consistence of syrup, it readily crystallizes in a mass, which may then be purified by recrystallization. The kinate of lime may be precipitated by means of alcohol, and then be crystallized after solution in water or diluted alcohol; or by adding oxalic acid drop by drop, according to the directions of M. Vauquelin, the lime may be separated, and kinic acid obtained. Two-thirds of the quinia or cinchonia in a specimen of bark may be thus separated, and with such facility as to offer a ready test of the presence of these alkalies in any wood or bark submitted to examination."—*Ann. de Chimie*, XXXV. 166.

—

102. *Sulphur in Assafœtida.*—M. ZEISE has discovered the existence of sulphur in assafœtida. The following are the principal experiments by which he has ascertained this fact. If assafœtida is treated with liquid caustic potash, and an acid is added to the solution, an effervescence takes place, and a gas is disengaged which blackens paper moistened with acetate of lead. If a solution of assafœtida in alcohol be evaporated to dryness, and nitro-muriatic acid, (aqua regia,) be poured upon the residuum, a liquid is obtained which contains sulphuric acid. If pure volatile oil of assafœtida is burnt, a very strong odour of sulphurous acid is given out. The same oil heated, till inflamed, with potash,

leaves a mixture of carbon and sulphuret of potash. M. Zeise thinks that sulphur will be found in many other organic substances.—*Journal des Progrès, Vol. VIII.* 1828.

MISCELLANEOUS.

103. *Vaccine Disease.*—M. Prela, physician to the Pope, has very plausibly shown, (in a treatise entitled Il Boa di Plinio congettura su la Storia della Vaccinazione. Milano, 1825,) particularly by passages from Pliny and Celsus, that the vaccine was known to the ancients under the name boa, to designate its origin from the cow, and upon this has founded the ingenious hypothesis, that from this boa, the small-pox, by the influence of human organization, has by degrees been developed, so that its removal by means of the cow-pox is to be considered merely as a return to its source.—*Hufeland and Osann's Journal der pract. Heilkunde, February,* 1826.

---

104. *On Foreign Substances in different parts of the Body.* By Charles Bell.—"A farmer's wife, with her gossip, came to me, describing the great distress she had suffered in coming up to town from being unable to sit. She proceeded to describe an excessive pain and pricking in her hip near the labium. When I had prevailed upon her to allow me to examine this, I found an abscess pointing, and I thought something like a foreign body within it. I opened this with the lancet, and struck on something hard; and having got hold of it with the forceps, I drew it out. My surprise was very great to find it was a piece of a comb, but nothing to that of the poor woman, who was quite speechless with amazement. She could give no account of the manner of its coming there; indeed the talkativeness of the two good ladies ceased altogether, and they seemed very desirous to depart. The surgeon who attended her in the country, wrote me some time after that he had extracted another portion of the comb. That which I took out consisted of four of the coarse teeth of a dressing-comb.

"It is not uncommon for bones to be arrested in the rectum, causing great irritation above the sphincter; and these I have known make their way to the hip. A bone sticking above the sphincter, obstructing the course of the canal, causing great pain and irritation, has been mistaken for cancer in the rectum; and the patient has been relieved from great suffering and the apprehension of death, by the extraction of such a bone. I attended a physician from India, Dr. M. with scirrho-contracted rectum. In the course of the disease his symptoms became suddenly aggravated. The cause at length disclosed itself in a phlegmonous tumour forming upon the point of the hip. When I opened this, there were discharged from it as many bones of small birds as would lie on the palm of the hand. But unfortunately these bones had not been the cause of the disease in the rectum: they had only been retained above the scirrhous contraction, until by inflammation and suppuration they had made their way through the cellular texture to the hip. Such circumstances teach us the propriety of passing a sound through the stricture when there is any great aggravation of symptoms. I may notice that such things sticking in the rectum produce great irritation in the bladder. Colonel G. had consulted me on account of a stricture in the urethra. I found none, and attributed his symptoms to intestinal irritation. (See his case, p. 74, of my Treatise on the Diseases of the Urethra.) That gentleman, while on a coasting voyage in India, which he undertook on account of his health, had a large fish-hook extracted from his rectum, which I have no doubt had been the cause of the irritation of his bladder."—*London Medical Gazette, Vol. I. No. 7.*

AMERICAN INTELLIGENCE.

A Case of Rheumatism with Metastasis, producing Carditis, Pericarditis, Peripneumonia, and Pleuritis. By W. P. Dewees, M. D.—A. B. aged eight years, of a delicate habit, began on the 16th November, 1827, to complain of a cold; that is, she had a slight sore throat, cough, and a general soreness over the body. She was dieted, and took a dose of castor oil by the direction of her mother. 17*th.*—She remained pretty much the same. 18*th.*—Her feet and hands were observed to swell, and were very slightly inflamed; though not painful they were sore to the touch. 19*th.*—The first day of my visiting her. She complains of a severe pain in her right groin; a small tumour is observed here; the soreness of this part excessive. Purged with calomel and magnesia, and the part bathed with warm sweet oil. 20*th.*—The pain and soreness of the groin much mitigated; but the chest is suffering from severe pain accompanied by great oppression. Was blooded; the blood very sizy. 21*st.*—All her symptoms much relieved. 22*d.*—Pain in the groin nearly gone; could bear the part touched, and move her limb without much suffering. In the evening I was sent for, but being engaged I requested my friend Dr. Hays to visit her for me. He found her sitting on her mother's lap, being unable to lie down. She complained of pain in the region of the heart, with difficulty of breathing. Her pulse was frequent, but not corded; the respiration was short, pain being experienced when an attempt was made to draw down the diaphragm. A metastasis of the disease having evidently taken place to the heart and diaphragm, revulsives were ordered with the hope of relieving these parts. A large sinapism was applied over the chest, which afforded prompt relief, and on my visit the next morning I found her free from pain. During that and the two succeeding days, she improved so much as to be able to be about; and nothing but a little debility seemed to remain. But on the twenty-fifth, she exposed herself several times, by walking, without additional covering, through a long, cold entry, by the ill-directed advice of the servant in whose charge she was left for a few hours; the consequence was, that on Monday the twenty-sixth, she was attacked with a severe pain at the extremity of the xiphoid cartilage, accompanied by great distress in respiration, and total inability to lie down. I ordered a sinapism applied over the pained part, which very promptly relieved her. 27*th.*—Her stomach much harassed by sickness and vomiting; the groin free from pain as was the part upon which the sinapism was applied yesterday. After the stomach had continued for an hour or two in the situation just stated, it would suddenly be reconciled, and the top of the left shoulder would now be the seat of excruciating pain, which in turn would become easy by a return of the disease to the stomach, which would now be sick as before; or the pain would fix itself in the left side near the margin of the false ribs; and thus the affection would alternate a number of times in the twenty-four hours. 28*th.* Stomach very sick, with some difficulty of breathing. In the after-part of the day, these symptoms became very much more severe; so much so indeed, that there was now violent and frequent vomiting. A white tenacious mucus in considerable quantity was eventually thrown up, which at the moment afforded great relief. I was present at this time; and from the great abatement of her distress, I indulged a hope it would be permanent; but in about an hour after I had left her apparently much improved, I was suddenly called to her, and before I could reach the house, she was a corpse.

During the whole progress of this disease, the arterial system was but little affected, the pulse, with the exception of the last day, was neither frequent nor tense;

yet it bore evacuations remarkably well, as far as they were pursued. Bleeding, leeching, and purging were in turn ordered: as were, with some vigour, blistering and the repeated application of rubefacients.

The cough, which attended through the whole course of the complaint, was always found to be augmented whenever the chest became the seat of attack. Expectoration was difficult, requiring numerous efforts to bring up a small quantity of white tenacious mucus; but this little always appeared to afford some relief.

It was truly astonishing to see with what suddenness the disease would shift its seat, and with what severity it would affect the part to which it would translate itself. When the stomach became the seat, it would instantly produce violent sickness, and sometimes pretty severe vomiting, which would continue for several hours. After this, it might in an instant be transported to the diaphragm, lungs, or pleura. When here, she would experience severe pain, great difficulty of breathing, and almost incessant coughing, and an inability to lie down.

From these parts it would return to the stomach, attended by the usual consequences of extreme sickness, or distressing vomiting; or, more fortunately, it might take its flight to the point of the shoulder, where it would tarry the longest, and of course with the lesser inconvenience. On the twenty-eighth, it attacked the stomach with unusual violence; and after the severe vomiting mentioned above, it seized upon the heart, and death almost instantly followed. For after it had left the stomach, she desired to be seated upon her mother's lap, where she had not been more than five minutes, before she shrieked violently from pain seated in the region of the heart; she stiffened all her limbs by a sudden effort, and in a moment died.

It is worthy of remark that the child's parents are both sufferers from rheumatism, and that she had several times before been attacked with the disease; and also that eighteen months before her death she had had chorea Sancti Viti, which continued for three or four months, and was cured by the repeated administration of purgatives, principally cremor tartar and jalap in combination.

I am indebted to Dr. Horner for the following account of the post mortem examination.

Autopsy, thirty-eight hours after death, in the presence of her physicians, Drs. Dewees and Hays.

Exterior aspect.—Colour as usual after death; no great marasmus; pupils dilated; expression of countenance tranquil.

Head.—Membranes of brain natural; cerebrum natural; cerebellum somewhat softer than usual; not a drop of water in ventricles of brain.

Medulla Spinalis.—Membranes natural; it seemed harder than usual, and its elasticity was so considerable that it would suffer an extension of two inches, followed immediately by an equivalent contraction. The rugæ on its surface very perceptible. Its elasticity was independent of the dura mater, for it continued the same when the latter was slit up both before and behind. The dura mater contained about two drachms of fluid, one half of which was blood, and the other the serum peculiar to this cavity. The upper and the lower enlargements of the medulla spinalis, (renflements,) where the nerves of the upper and of the lower extremities come off were unusually developed.

Thorax.—Heart twice as large as usual, and adhering by a thick coat of lymph to the pericardium, excepting a small extent of the right ventricle, and the whole of the right auricle. Two ounces of straw-coloured serum in pericardium. The texture of the heart was sensibly altered; its parietes being almost universally thickened; of a light colour, about that of veal flesh; so rigid as not to collapse after the manner of healthy hearts upon the evacuation of its contents; and cutting in the crispy semi-cartilaginous manner peculiar to inflamed muscles. I did not detect any inflammation of its lining membrane; the right cavities contained coagula of red blood.

The left pectoralis major muscle had been the seat of pain; it was found not altered in colour, but the texture had undergone the same pathological change

with that of the heart. The pleura of the region behind it had some filaments of coagulating lymph passing between it and the corresponding surface of the lung. The whole circumference of the pleura on both sides of the body had lost the smooth shining condition of the normal state, presented here and there specks and pellicles of lymph, and was slightly turbid. Each cavity contained about two ounces of a straw-coloured, transparent serum.

The thymus gland was natural, being about the size of early infancy.

The right lung was heavy, fleshy, and had lost one-half of its spongy character; the blood being infiltrated into the cellular substance, and identified with the organ. The left lung was also partially solidified with blood, but by no means to so high a degree as the right, for its spongy character still predominated: it was pushed to the back of the thorax by the augmented heart.

Abdomen.—Peritoneal surface universally healthy.

Stomach.—Of a pink-colour on its mucous membrane, especially along the ridges and sides of the rugæ, being two or three degrees lighter than Mr. W. Jones's, reported in No. I. of this Journal. It seemed entirely healthy, and had abundant rugæ.

Small Intestines.—Duodenum healthy; the jejunum and ileum in the greater part of their extent were reddened by a turgid state of the capillary veins, but there was neither ulceration, ecchymosis, or thickening; they were smeared with mucus, and had some appearance of irritation, but possibly the latter might have arisen solely from retrograde congestion, by the arrest of the circulation at the heart. The congested state of the lungs would favour the opinion, but in that case one would infer that the stomach also should have been congested with venous blood, which was not the fact.

Large Intestines.—Spasmodically contracted, and contained only mucus.

Liver.—Peritoneal coat somewhat turbid, a little thicker than natural, and abounding in large distinct absorbents; granular substance, (acini,) not so distinct as usual, hard, cohering strongly, and somewhat intermixed with that resisting yellowish matter, constituting what has been called the fat liver.* Had this state of the liver a connexion with the chorea, or with the long course of purging instituted for the cure of the latter?

Gall-Bladder.—Contained a yellowish, thin mucus; cellular coat increased to three lines in thickness by the infiltration of a gelatiniform fluid.

Spleen healthy. Kidnies not examined.

Case of Puerperal Peritonitis successfully treated with Mercurial Frictions, and Turpentine internally administered. By W. P. Dewees, M. D. &c.—M. Velpeau has recently recommended frictions with mercurial ointment, as a remedy in puerperal peritonitis, and he relates several very interesting cases in which he employed them, apparently with advantage. The mode of employing it is:—

First, To have the whole abdomen smeared with from two to four drachms of the unguent every two, three, or four hours. Second, If the pain and swelling of the abdomen, and especially if the mouth betray any mark of the influence of the mercury upon it, to diminish the quantity to one or two drachms, and to make the intervals of application longer. Third, To wash off, with warm water and soap, or with sweet oil, the crust which the ointment forms upon the skin, that in its future application it may be more certainly placed in contact with the skin. Fourth, To continue the ointment, if circumstances warrant it, (that is, if the patient live long enough, or if her system be obedient to its influence,) until either signs of salivation show themselves, or until such amendment takes place as shall render further perseverance unnecessary.

The following very interesting case has lately presented itself, in which the mercurial ointment was very liberally used: but I should be very unwilling to decide upon the extent of the agency it had, in the recovery of the patient, as

* Having once tried it by experimenting, I am of opinion that this matter is not adipose, but a modification of coagulating lymph.

another celebrated remedy was employed simultaneously with it; namely, the spirit of turpentine.

I was requested by Dr. Mitchell to visit Mrs. ——, who was very ill with puerperal fever. This patient had been delivered safely by the doctor of her first child, and nothing alarming presented itself until the second day. Milk had been freely secreted, and there was every promise of a good "getting up," until the beginning of the third. At this time she was attacked with a pretty severe chill, which was followed by great heat, thirst, tenderness of the abdomen, and a very frequent pulse.

She was bled, purged, leeched, and blistered on the abdomen, and kept upon a strict antiphlogistic regimen, &c. before I saw her. There was such an appearance of amendment for two or three days after this time, that scarcely a fear was felt, but that she would surmount her disease; but the expectations so fondly indulged in, in the morning, were entirely destroyed in the evening, by finding our patient with a cold clammy skin; a pulse scarcely to be numbered, very small, nay, almost extinct; breathing short, very frequent, and rather laborious; the alæ nasi expanding and contracting with great frequency; the stomach rejecting every thing offered to it; the lips dark and dry; the milk entirely gone; slight mental alienation, though not amounting to delirium; the abdomen excessively distended and tympanitic; the feet and legs cold; extreme fœtor of the lochia, which were small in quantity, and very dark: in a word, so certainly did we look upon her being in articulo mortis, that no appointment was made for a visit next morning.

Notwithstanding, however, these unfavourable appearances, Dr. M. and myself thought it a duty to do every thing that lay in our power—accordingly thirty drops of the spirit of turpentine were ordered to be given every hour; an ounce of strong mercurial ointment was directed to be rubbed on the abdomen during the night, sinipisms were ordered to the feet and legs, and an enema of sixty drops of laudanum and a gill of warm water was to be thrown up the rectum.

The next morning Dr. M. favoured me with a call, as had been agreed upon the evening before, provided he found the patient alive. And I honestly confess, I was much surprised when he reported our patient to be rather better than we had left her in the evening. Upon visiting her, this was found to be the case. The skin and extremities were warm; the pulse more expanded and considerably less frequent; the breathing more natural; the countenance more composed; the mind more upon the alert; the vomiting and nausea greatly subdued; the abdomen rather less tender. The ointment was to be continued, as well as the turpentine; of the latter she complained, as creating a disagreeable heat in the stomach. To remedy this, a tea-spoonful of sweet oil was directed to follow in fifteen minutes, each dose of the turpentine, which effectually removed this inconvenience.

Barley water and very thin sago were directed as drink and nourishment; also the juice of sweet oranges, which proved very refreshing. The remedies were ordered to be continued in the evening. On the morning following, there was so much amendment, that the turpentine was discontinued; the pulse was still too frequent, but the abdomen was less swelled, much softened, and very much less tender. The ointment, however, was again applied. From this time she improved hourly, and had eventually a rapid convalescence.

During the whole treatment, it may be proper to observe, that a solution of gum arabic was her chief food and drink; and that at no time were internal stimulants, if we except the turpentine, for an instant employed.

I have since been informed by Dr. M. that four or five days after I had taken my leave of this patient, that upon her complaining of some pain in her bowels, the nurse, (a new one,) gave her some brandy to relieve it; this immediately exasperated the pain and re-excited fever. She was under the necessity of losing twelve ounces of blood, and to be purged, which soon relieved the pain and fever; she recovered soon after this, without further interruption.

It may be as important, as it is interesting, to state, that after an entire cessation of the milk, for two weeks, it was restored, and continues sufficient to nourish the child; this was effected by the persevering application of the child to the breast.

—

Account of the Disease called Dengue, which has prevailed so extensively at Havanna. By G. F. LEHMAN, M. D. Lazaretto Physician to the Port of Philadelphia. (Communicated to the Board of Health.)—In answer to the resolution of the Board of last evening, requesting my opinion of the nature of the disease with which the men of the ship Columbia are affected, I respectfully communicate the following facts.

Henry Allen, seaman, had, while in Havanna, the disease called by the natives Dengue, from which he entirely recovered upon warm lemonade. He continued in good health until the 20th of June, when he was seized with a high fever, and pains in all his bones, the violence of which, particularly in his head and back, was almost insupportable; a dose of calomel and jalap was administered to him, which had no effect. In three days the violence of the affection was over. He is now very weak, depressed in his spirits, has pains in his bones, and no appetite, but without any fever. I consider him, therefore, at present, as labouring under the effects of Dengue.

William M'Elwee, the blacksmith, was taken sick June 19th of a violent fever, excruciating pains in his back and head, and severe vomiting. He had alternate flushes of heat and cold shiverings, with a burning redness over the whole body. In a few days the cuticle desquamated. He now complains of pain in his joints, slight headache, and occasional nausea. He took no medicine, but drank freely of warm lemonade. This may be put down as a case of Dengue.

James Simpson, seaman, states, that in the morning of June 30th he had a chill while aloft—the next morning he felt well again. On the night of July 1st he was seized by severe pains in his back and head, and thought he was dying. Yesterday morning I saw him. He had, in addition to the pains, considerable fever, with a furred tongue, and a bright redness over the body. To day he is better.*

From the conversations I have had with the passengers of the brig Pomona, some of whom have resided many years in Havanna, and one of them had sixteen cases of Dengue in his own family, I am led to believe that the disease of the men of the ship Columbia is the same. It varies occasionally in all its symptoms, excepting the pains in the bones, which exist in all cases. The facts in support of my conclusions are now all before you.

Two of these men have been sick before, and the other predisposed to the disease, which was probably excited into operation, by exposure to tempestuous and wet weather here.

This disease, which appears to be a variety of bilious fever, depends no doubt on the extraordinary weather experienced for some months past on the Island of Cuba. No rain has fallen for six months, and the drought is severe beyond all recollection. When the rains begin to fall, the disease will no doubt alter its complexion, and assume a different type.

Lazaretto, July 3d, 1828.

I enclose a few additional remarks on the disease called dengue, now prevailing in the Havanna, on the Island of Cuba, and a history of several cases taken down as they were delivered to me by the individuals affected. These, with the history of the cases already given, embrace all my present information on the subject. My experience in this disease has been limited. With the excep-

* James Simpson was perfectly well on the 7th inst. but in consequence of running about too much at night, and exposing himself to the very heavy dews prevailing here, he had a relapse, with all his original symptoms, but not quite so violent. A moderate dose of castor oil with warm balm tea removed the complaint in forty-eight hours, and he is now (July 11th,) convalescent.
Second attacks, or more properly speaking, perhaps relapses, are very common.

tion of the cases now in the hospital, an account of which I imparted some days ago, I know nothing personally.

The facts about to be presented, are mainly derived from loose and desultory conversations with a few passing travellers, totally unacquainted with the science of medicine. I have seen no medical man familiar with the disease, nor one indeed, who has ever witnessed it.

These prefatory notes are offered, not only to restrain confidence, but more especially as an apology for the circumscribed statement I am prepared to give you, appertaining this novel affection, which, in its present shape, has never appeared on our shores. An inclination, however, to comply with the request of the board, impels me to transmit the scattered facts, which have from several sources fallen under my notice.

I have found some difficulty in obtaining a definite signification of the word Dengue or Dunga. It is a vulgar phrase, and implies a "staggering weakness," and is somewhat similar in its import to our term of "Corned," as applied to a man reeling about from intoxication.

The population of Havanna, is about one hundred and sixty thousand, including the city and suburbs. Of these it is estimated, that from fifty to sixty thousand have had an attack of Dengue. When the disease first appeared, and its character unknown, some, to allay the violent fever, resorted to venesection and strong purgatives. In every instance where this was done, the patient's life was the sacrifice. It was soon discovered that the disease would not bear depletion, and that simple diaphoretics succeeded best; but I am in advance of my subject.

The last winter of Havanna was distinguished for its warmth and dryness, and sickness was very prevalent. The winds were north-west, south-west, and dry. No rain of any account has fallen for six months.

About the last of April, or beginning of May, the Dengue first attracted public attention. It spread with wonderful rapidity among the citizens and crews in the harbour. From fifty to sixty thousand of the citizens had the disease in the course of six weeks. Out of Mr. Vinas' family, (a passenger of the brig Pomona,) consisting of eighteen, sixteen had the disease, and the two who escaped were negroes. Strangers and natives are equally affected.

The opinions of the physicians of Havanna, regarding its nature, I have been told are various. While some consider it a scarlet fever, others look upon it as a misplaced influenza; but they are unanimous in giving it an atmospheric origin. To me this appears certain. No disease depending solely upon contagion, or communicated from body to body, ever attacked so large a number in so short a period of time. At least, it is contrary to all the known laws, and the usual progress of all acknowledged and uncontroverted contagions.

The influence of the atmosphere and state of the winds in the generation of disease, is admitted by every authority; but the manner of its operation, and the causes of this morbid influence are not so well understood. Every one knows that a moist, close, and chill atmosphere will generate influenzas, catarrhs, and pleurisies, and a hot and moist one will very often give origin to the different forms of bilious fever; but why these effects follow is a mystery.

This epidemic then, as far as I can inform you, is atmospheric.

The person about to be affected, is usually attacked, (but not uniformly,) during the night, with a fever, pain in the head, back, and limbs, and a soreness of the muscles to the touch. Sometimes the head alone suffers from pain; occasionally the severity is in the lower extremities, and indeed every part of the body is affected; but generally the head, back, and limbs are more or less disordered together. The first sensation of pain that Mrs. Vinas felt was in her wrist. Mr. Melizet, (a passenger of the brig Ponoma,) was warned of his attack by a pain in the corn on his little toe. Some are primarily affected in the extreme end of their fingers, and thus it varies in almost every case, but the disease advances, and falls on more important parts. From the violence of arterial excitement, delirium is no uncommon occurrence. At the expiration of

three days, the morbid influence usually ceases, and the patient recovers with a voracious appetite, or a total loss of it for many days; the soreness of the joints and muscles continuing for some time, and eventually relieved by profuse perspiration. All are not attacked with equal severity. In many instances the disease is light, and terminates in forty or fifty hours.

Notwithstanding the pathology of Dengue is not clearly elucidated, the therapeutics is well understood, and depends almost exclusively in creating perspiration by the simplest means. It consists in administering to the patient large draughts of warm orange-water or lemonade, (the first is preferred,) occasional pediluvia, and an entire abstinence from all food, and warmth applied in some instances by a blanket thrown over the body. If costiveness prevails in the commencement of the disease a purgative medicine is given; and in its worst forms, when the brain is unduly excited, or delirium exists, cold vinegar, or vinegar and water, is applied to the head, and mustard cataplasms to the soles of the feet. This constitutes the whole treatment.

I was early aware that powerful remedial agents were improper, and prepared to treat any cases that might fall under my inspection agreeably to the Spanish plan. When the seamen of the ship Columbia were introduced into the hospital, I gave each of them half an ounce of castor oil, merely to open the primæ viæ, (neither of them had an alvine dejection for forty-eight hours preceding,) and then directed warm weak chamomile and balm tea to be drunk, repeated pediluviums, and a light regimen. Two of them are now well, the other was very much debilitated when landed, and from previous neglect seems to labour under visceral obstructions.

The mortality has been very small. Nearly all the deaths are attributed to mismanagement of the disease in its early attack, or great imprudence afterwards, in the patients themselves. I am credibly informed that even with this admission, not one death in five hundred cases has happened. An astonishing fact, and inapplicable to the lightest forms of disease prevailing among us at any season of the year.

The mortality, however, has been somewhat greater among the crews in the harbour. Seamen are usually careless and imprudent, and such an event should be expected. The deaths even there, have been comparatively small, and did not excite any strong sensation. The proportion of deaths in the harbour cannot be reached by any ascertained data, because ships are perpetually entering and leaving Havanna.

From its incipient symptoms, independent of other considerations, I am induced to consider Dengue as a bilious fever, modified by the prevailing weather of the island of Cuba, and particularly the dryness. It presents to be sure a new face, but some of the old features are so strongly marked that its identity is tolerably certain. This conclusion I wish you to understand, is founded particularly on the observation of those under my care, and if they correspond with all others in symptoms, &c. (of which my knowledge is from hearsay,) the inference is not far from the truth.

I shall conclude with a brief outline of a few cases. They agree, in general, with all the others I have heard of, and only differ in the violence of the attack or some unimportant symptom.

John Pleasants, passenger of the ship Hibernia, was sick in Havanna. He states that he was attacked about twelve o'clock at night with fever, pains in his head, back, and lower extremities. He took a dose of calomel and jalap, which operated copiously. Afterwards he drank warm orange-water—threw a blanket over him which produced a free perspiration. In a few days he was well. Slight pains in his joints, and soreness of the muscles to the touch, continued for a short period after his convalescence.

Captain Newton, of the brig Pomona, was seized about sunset with pains in the bones, and a little fever, with vomiting, which continued eight hours. The fever abated in twenty-four hours, but the pains continued for several days in the limbs. He drank orange-water cold, and took a dose of calomel and jalap,

and several doses of oil during convalescence, and was nigh falling a sacrifice to the strong purgatives. His face and body were covered by red blotches.

Mr. Astley Punton, passenger of the ship Hibernia, was taken sick in Havanna, with pains in the head and fever, which continued thirty-six hours. He drank warm orange-water, and had mustard cataplasms to the soles of his feet. He recovered in a few days with an impaired appetite.

James Wetherly, carpenter of the ship Hibernia, had pain in the head, back, and limbs, nausea, but no vomiting; a dose of calomel and jalap was administered, and plenty of warm lemonade, and in three days he was well—covered with red blotches.

Pimples similar to the prickly heat, and red spots on the cuticle, were very common during convalescence.

Lazaretto, July 7th, 1828.

On the External Use of Tobacco in Croup. By JOHN D. GODMAN, M. D.—During my residence in New York, where my children were very frequently attacked with severe and dangerous fits of croup, to which they had always been particularly liable, I was informed by my friend, Dr. F. VANDERBURGH, of a very simple and efficacious method of arresting, at once, all the symptoms of this distressing and frequently fatal disease. Whenever children are threatened with an attack of cynanche trachealis, he directs a plaster covered with dry Scotch snuff, varying in size according to the age of the patient, to be applied directly across the top of the thorax, and retained there until all the symptoms disappear. He stated that he found the remedy to be always effectual when applied in the first or second stages of the malady.

This mode of treatment was from prejudice or scepticism neglected by me, and in one instance, in which, with very considerable difficulty, one of my children was rescued by the ordinary treatment. But on being again urged to make trial of the snuff plaster, I determined to make the experiment whenever opportunity presented. This was not long wanting, and when called to a child labouring under all the symptoms of the early stage of croup, such a plaster, (made by greasing a piece of linen, and covering it well with *Scotch* snuff,) was directed to be applied to the chest. The event was most happy; the symptoms of tracheal irritation and harsh crooping cough ceased shortly after, the child fell into a profound sleep with gentle perspiration, and by next morning was free from all distressing symptoms. The plaster was reapplied for a night or two following, and then discontinued, as the disease had entirely disappeared. Since that time my family have been saved from a great deal of anxiety and alarm, to which previously they were subject, as we were obliged to keep Coxe's hive syrup, tartar emetic, and all the other articles usually resorted to, constantly ready to meet the attacks of croup, which were very sudden and frequent in cold and wet seasons. Since then, we have found nothing necessary but the snuff plaster. If a child is heard to breathe hoarsely, or cough, with any thing of the dreaded ringing sound of croup, it is only necessary to apply the snuff plaster, and we feel under no farther anxiety. Instead of being obliged to watch with the child all the rest of the night, when once the snuff is applied, we go to rest again, with a feeling of entire security, which we have never had the least cause to regret.

The intelligent physician above-named, is in the practice of deriving great advantage from the external use of tobacco in various cases, in which it is by no means generally employed, if its use be even thought of. To allay the irritative cough arising from different diseased states of the lungs; in diseases accompanied with chronic spasm, and in the reduction of hernia, by direct application of tobacco to the hernial tumour, &c. Dr. Vanderburgh has used tobacco externally with very decided success.

In cases of croup the *Scotch snuff*, (which I believe is prepared from tobacco stems,) is to be preferred. My friend, Dr. PENDLETON, of New York, informs me, he has tried other snuff without attaining his end, while with the *Scotch* the

effect was certain. I publish this note with the hope that other physicians will give the treatment a fair trial, and report their experience. It has the advantage over the tobacco smoke, mentioned in the interesting notice of Professor CHAPMAN, recently published,* that it may be kept always ready, and be applied in the dark, without loss of time. It has never caused vomiting, vertigo, or any other distressing symptom, in my experience, and this accords with the experience of both the physicians first mentioned in this note.

—

Case of Imperforated Hymen. By B. BURWELL, M. D. [Communicated in a letter to Dr. DEWEES.]—On the 11th June, 1822, I visited Miss S. S———, aged nearly fifteen years. She had slight fever, furred tongue, some thirst, loss of appetite, pain in the head, and pain in the back resembling precisely that of labour, and frequent desire to void the urine. The labia were swollen, and together with the perineum were somewhat protruded and tender to the touch; the hymen was resting within the labia, *imperforated*, semi-pellucid in the centre, but more vascular around its edges; a fluctuation of the contained fluid could be felt. It was almost a year since every symptom of menstruation had been regularly established in the system, but no discharge had ever taken place. Excepting at the menstrual periods the general health had been tolerably good. A small tumour, probably the distended uterus, could be felt above the os pubis.

I punctured the hymen with a lancet, and drew fourteen ounces of dark, thick, uncoagulable blood from the vagina, and in the twenty-four hours following the operation, she discharged about the same quantity of still darker appearance and of greater consistence or tenacity. After this, the discharge gradually became natural.

Complaining of considerable debility, a few mild tonics in wine were taken—the patient soon recovered her health, and has ever since menstruated without the least difficulty.

The blood flowed in a considerable stream, and was received into an oval dish, carefully weighed, and then put at rest, so as to afford every opportunity for coagulation. It was preserved for twenty-four hours, and, although the weather was very warm, not the least appearance of coagulation or of putrefaction was perceptible.

—

Case of Premature discharge of the Liquor Amnii. By JOHN H. KAIN, M. D. [Communicated in a letter to Dr. DEWEES.]—Mrs. R. a lady of a very delicate frame, who had borne several children, but miscarried with the last about the seventh month of pregnancy, sent for me in the night of the 31st of December, 1827. She was in the sixth month of pregnancy. The day previous she had complained of distressing cardialgia. When I arrived, she had pretty severe alternate bearing-down pains: some subsidence of the abdomen had taken place, and there was a considerable gush of liquor amnii with each pain. The motion of the fœtus was perceptible. She had no difficulty of discharging her urine, which was likewise subject to the voluntary powers. The discharge from the vagina was not coloured. The pulse small, hard, and quick.

I bled her, and directed an anodyne enema. The next morning I found her much easier. There was still some discharge from the vagina, attended with slight pains, a hard, quick pulse, sick stomach, and furred tongue. She was again bled a few ounces, and took a tea-spoonful of calcined magnesia, and the same quantity of Epsom salts. Quietude and a horizontal posture were enjoined. The salts and magnesia operated gently, and the next day I found her much better.

She had a return of the same symptoms, with discharge of the liquor amnii, on the thirteenth of January, the eighth and twenty-fifth of February, and eighteenth of March. The same treatment was pursued with a similar result.

* Vol. I, p. 497, of this Journal.

On the 28th of March, after a very quick labour, the child was born alive, but lived only about half an hour. There were a number of hard, yellow tumours on the placenta; and the palms of the infant's hands and the soles of its feet were vesicated; whilst the other parts of the hands and feet were lived, resembling nævi materni.

The labour was premature, though two weeks more would, perhaps, have completed the term of gestation. The child had great difficulty of respiration, and died in convulsions.

—

Exsection of the Clavicle.—Professor Mott, of New York, has recently performed this daring operation with success in a case of osteo-sarcoma. The disease first began to show itself in February last, and by the month of June had increased so much that the tumour of the clavicle was as large as an ordinary fist, and from its superior surface, which was ulcerated, hæmorrhage frequently occurred. Although the patient was otherwise healthy, the excessive irritation caused by the disease, together with the frequent loss of blood, must soon have destroyed his life.

The disease was so extensive, and involved such important parts, that apprehensions were justly entertained that the operation could not be advantageously attempted. The probability of finding the great subclavian vein involved in the spongy bony mass, the necessity of a very extensive dissection, and also of proceeding with extreme caution, in order to avoid injuring the thoracic duct, together with the possibility of much loss of blood, and the certain infliction of very considerable pain, were all made known to the patient and his friends. The patient, however, had resolved to submit to an operation, and was desirous of having it performed without delay.

Dr. Mott began by an incision opposite to the sternal extremity of the fourth rib, and extending semicircularly upwards, to within two inches of the thyroid cartilage. He next cut from above the acromion process towards the sterno-cleido-mastoideus, to meet the extremity of the anterior incision. The external jugular vein was tied and divided. The sternal articulation of the clavicle was next cut loose, and the dissection continued outwards until the rhomboid ligament was separated. The clavicular head of the sterno-cleido-mastoideus was carefully detached, and now the whole of the dreadful tumour was brought into view. The irritation produced by this spongy bleeding mass had caused all the vessels of the surrounding parts to be greatly enlarged, and rendered it necessary to tie a great number. Every cut affecting the tumour immediately obscured the succeeding part of the operation by free oozing of blood, and every movement approximating the subclavian vessels demanded the utmost caution. The patient with great fortitude sustained the operation, which, from the circumstances above-mentioned, was protracted for nearly four hours. In separating the tumour from the subclavian vein throughout its course, and from the thoracic duct, the operator necessarily experienced the greatest difficulty, having to wait for each diminution of the vein caused by inspiration, in order to make use of the knife. The vein was partially imbedded in the spongy mass, and was entirely denuded for some inches when the operation was accomplished, by dividing the scapular portion of the clavicle opposite to the origin of the conoid ligament. About thirty vessels were tied during the operation. As the integuments were ulcerated and destroyed for some extent over the tumour, it was impossible to save a sufficiency to cover the wound, which was filled up with lint, and the patient put to bed.

On the sixth day evidences of granulation were seen; the patient continued rapidly to improve, and we have reason to believe is at this time quite recovered.

In conversation with Dr. Mott, thirteen days after the operation, he informed us, that every thing promised a most happy conclusion to this severe dissection. Dr. Mott stated, that of all the operations he ever performed, this was the most difficult and appalling in appearance; and so arduous was the task of separating

the diseased clavicle from the important vessels beneath, that he was once almost inclined to doubt the possibility of accomplishing his purpose. By persevering with extreme caution and patience, he enjoyed at last the satisfaction of complete success, in which every philanthropic mind must sincerely sympathise.

The history and details of this interesting case will be given by our distinguished collaborator in a succeeding number of this Journal. G.

On the Quarantine Regulations of Boston. By E. Hale, M. D. Jr. [Communicated in a letter to the Editors.]—The author of the review on "Quarantine Regulations of the United States," in the first number of the American Journal of the Medical Sciences, appears to have misapprehended the design of the ordinance establishing quarantine in Boston. Having made an extract from that ordinance, so as to include its provisions with the quarantine regulations of other cities, he remarks of them, that "it will be seen that they are all founded on the assumption of yellow fever being contagious, or capable of being imported in a developed form." The reviewer is indeed aware and takes notice of the fact, that the powers given by the Boston ordinance to the health officers, render it capable of being used to a very different purpose. But he does not seem to have been aware, and as a stranger he could not well have been, that this ordinance was passed with the express design of doing away, and that in practice it has done away, the whole of the old system of quarantine, so far as it had respect to the supposed contagious character of yellow fever.

Such is in reality the case. For although all vessels arriving at Boston, between the fifteenth of June and the fifteenth of September, from the West Indies, or from the Mediterranean, or from between the tropics, except from beyond the Capes, or from any other place where an infectious disease prevails, are required to perform quarantine, yet the quarantine required of them, is nothing more than to submit to a thorough examination, and, if necessary, purification of the vessel and cargo. It has no respect whatever to the length of time the vessel may have been out, or to any of the other questions and restrictions which have arisen from the apprehension of contagion.

It may not be of much importance to correct the misapprehension into which the reviewer has very naturally fallen. The correction does not, by any means, weaken the force of his remarks in favour of a better system of quarantine regulations than those which are generally established, not only in this country, but in every other in which they are established at all. On the contrary, it greatly supports them; and it is on this account, chiefly, that I am induced to recal this subject to your notice, inasmuch as the Boston regulations afford one of the earliest examples of a quarantine system founded entirely on a correct theory of the diseases against the introduction of which it is chiefly designed to provide. This does not, it is true, very distinctly appear in the ordinance itself. It might be difficult to define in all cases by law how far the quarantine ought to extend. There are still some diseases universally acknowledged to be contagious, (small-pox for example,) which it is necessary to guard against. There are others, as the plague, whose character in this respect is less settled. It was therefore desirable that the powers given by the law to the health officers should be of the most general nature. The practice under the law, in reference to yellow fever, as I have already observed, is wholly founded upon the well-established principle that it is not a contagious disease.

It is also worthy of notice that the change which has been effected in our quarantine system, is wholly the result of a corrected state of public opinion, produced by a free discussion of the subject in our literary journals and newspapers. In 1819, so entirely was the system founded upon the belief of contagion, that the ship Ten Brothers, to which much of the fever of that year was traced, went through her full course of quarantine without the slightest examination of her condition. Her hatches were not even opened until she was discharged from quarantine and arrived at the wharf; and

then she was found to be in so foul a condition, that nearly every person who went on board her, sickened and died. The discussion of the question of contagion, was soon after begun in the North American Review, and continued in the public papers, until almost the whole community were convinced that the disease was not contagious; and that the system of preventive measures which had so long existed, founded upon the supposition of contagion, was not only burdensome to commerce, but inefficient, deceptive and dangerous. Still the board of health was not in any degree convinced. At the new organization of the city, the powers of the board of health were transferred to the city council; but the council had by their own act, for a time continued the former board in power. But it now became necessary to abolish that board, and all its powers, in respect to quarantine, were transferred to the health physician, under the direction of, and subject to an appeal to, the mayor and aldermen. Perhaps no city has a more efficient, or a less onerous system of health regulations, than ours under the present arrangement.

—

On Expansibility as a Vital Property, and on the Influence of the Capillary Tissue over the Circulation of the Blood. By Hugh L. Hodge, M. D.—(*North American Medical and Surgical Journal, June*, 1828.)—The intention of the writer of this paper is to establish, in opposition to the views of Vacca, Allen, Lubock, Philip, and Hastings, that the capillaries, in inflammation, are in a state of increased, and not of diminished action.

The paper commences with an attempt to determine the meaning of the term "action of a capillary vessel," as being the point on which the whole discussion turns. It is not contraction, as is asserted by Dr. Philip and his school. Mr. Hunter affirmed differently, and other writers use the "word action metaphorically, to express the state or function of a vessel, a tissue, or an organ." The conclusion, therefore, is, "that the action of a capillary vessel implies the manifestation of its vital properties." This definition does not appear to be happy. We are aware how difficult it is to avoid obscurity in the explanation of points so profound and recondite, and the mode in which this definition is obtained, is not calculated, in our opinion, to arrive at a safe and perspicuous deduction. In physiology principles can only be established by a close analysis, and rigid examination of the phenomena manifested in organized or living structure, and not by the dicta or opinions of writers, however respectable their names or weighty their authority. As a consequence of this definition, "increased action" is the manifestation of such properties in an exalted degree. According to Dr. Hodge then, inflammation is exaggeration of the vital properties.

This definition of inflammation, though much less definite, is very analogous to that of M. Broussais, and his school, who regard it as an exaltation or exaggeration of the organic movements disturbing the harmony of the functions, or disorganizing the tissue where it occurs.

"The pathological question" or inflammation, the doctor then proceeds to affirm, "is reduced to a physiological inquiry as to the vital properties of capillaries; as to the modes in which their powers are displayed; and finally, as to the consequences of the manifestations of their vital properties."

The ingenious author of the essay has not entered into an investigation of what is to be understood by "vital properties." It is to be apprehended that this term is often employed in a very loose manner, and that some of his readers may attach a meaning to it very different from his own, and thus be unable fully to appreciate the force of his remarks.

Contractility, it is assumed, is a vital property admitted by all physiologists, in consequence of which capillaries contract on the application of certain stimuli, and expel their contents. This position is probably too general and unlimited. Darwin, whose views on the capillary system are profound, and worthy of respectful attention, does not attribute to them this property, and the disappearance of their contents from the application of certain stimuli, he explains by venous absorption, (Zoonomia, Sect. xxvii. I.) This property is adopted by

the writer of the paper, but he contends one of the principal objects he has in view in its publication, is to show "that capillaries have a vital property of expansibility; that they dilate under the influence of certain stimuli; and draw blood into their cavities from the supplying arteries."

The vital properties of the capillaries, it would appear from this exposition of Dr. Hodge, are contractility and expansibility. From the definition previously given, capillary action must then consist in contraction and expansion; and inflammation or the pathological action of the capillaries, the more rapid, or more forcible contraction and expansion of the capillaries.

That contraction and expansion are active states in the capillaries, is by no means established. The circumstances supposed to exhibit these states, and the effects attributed to them, admit of other modes of explanation. Positive experiments give a strong probability that they are accomplished by other means. Capillary circulation exists in bones of the closest texture and the densest woody fibres of plants, yet it can scarcely be contended that it is in them accomplished by the agency of contraction and expansion. Dutrochet has shown that capillary action may occur without contraction or expansion, both in vegetable and animal structure.

Contractility is a bad phrase. It was introduced by Bichat as a substitute for irritability, and he was led to adopt it, from falling into the error of the great Swiss physiologist, who regarded contraction as the test of irritability. Contraction is a function of muscular fibre, as sensibility is of nervous structure; it is not therefore a vital property. Hence Bichat was compelled to admit an insensible contractility--a contraction where no contraction could be proved.

Admitting, then, that expansion does occur in the capillary tissue, it is not an evidence of the existence of a vital property. Secretion is an action of capillary vessels, and is manifested on the application of certain stimuli, yet no one would make it depend on a peculiar vital property, and suppose the explanation of this vital phenomenon was approached by referring it to secretibility as a vital property. Nutrition is an action of the capillaries, and secretion and nutrition are in reality the most striking and important results of the actions of capillaries, but who will assert that nutrition is an evidence of a specific vital property to be called nutritility.

No advantage, it seems to us, is gained in science, by the multiplication of ultimate principles, and they should be admitted only on the most rigid demonstration. In the progress of sound philosophy and accurate knowledge, they are reduced in number and simplified in character.

The facts, which after all are of the most importance, adduced by the author as the proofs of expansibility as a vital property, are unquestionable. That an increased afflux of fluids takes place into capillaries, under the excitement of irritants and stimuli, is one of the earliest of the recorded axioms of medical science. Their turgescence and congestion, produced in this manner is admitted by every one, though the mode in which this afflux is effected, and expansion occasioned, allows of different explanations.

The idea of expansibility as a vital property, the author believes is expressed by Bordieu, in the erection of the glandular and absorbent systems that writer supposes to be requisite to their functions; in the rather vague phrases, "power of dilatation" and "action of dilatation," of John Hunter; and in the acknowledgment of an erectile tissue, by "some French and other continental pathologists," (physiologists.) He might have added also, quite as strongly, in the "erection vitale" of Broussais, the first element of the physiological pathology of the French reformer. It is, however, the fashion to decry and to neglect the name of Broussais, rather than to render justice to one who has accomplished so much that is beneficial and honourable to the science.

Expansibility was proposed originally as a vital property by V. Prus in 1825. His arguments on this point we believe were completely refuted in the Journal Universel and Annales de Physiologie. The views of this writer in that respect, have, notwithstanding, been adopted by Dr. Hodge, whose favourable

opinion gives them more weight than we were at first inclined to attribute to them.

Though Prus attributes to expansibility the afflux of fluids to irritated parts, he does not expressly assign "to the capillaries any active influence over the general circulation." The writer of the paper appears to consider such an influence as unknown to the author of the essay, De l'Irritation et de la Phlegmasie, and that its annunciation by Professor Smith, of Yale College, in the Philadelphia Monthly Journal, for 1827, by Professor Schultz, of Berlin, and himself, in his lectures, are the first and only notices of this doctrine. That Prus was not more explicit on this subject, is to be ascribed to the little novelty it would have possessed with his readers in France, where this doctrine is generally entertained, and taught in all the schools.

The independence of the capillary circulation on the impulsion of the heart, was first taught as early as Stahl and Van Helmont. Bordeu also separated the capillary circulation from the general circulation, and this doctrine was cogently and beautifully illustrated by Bichat, in his Anatomie Générale. In the Zoonomia of Darwin, the adequateness of the capillaries to their own circulation is clearly shown and enforced, (Section xxiii.) Broussais, who is hardly deemed worthy of notice, in 1811, published in the Memoires de la Société Médicale d'Emulation, a paper containing a theory of the liver, spleen, and lymphatic glands, based on this already established doctrine. It is at this point, as he remarks, where he commences. "Il est le point précis où la science est arrivée; c'est aussi de la que je veux partir." In the following passage the entire independence of the capillary circulation is expressed in the clearest terms. "Le cœur n'a donc, avec le système capillaire d'autre rapport que de mettre continuellement à sa portée le sang dont il peut avoir besoin: ensuite ce système en dispose à son gré, sans que le plus ou le moins de promptitude qu'il met a s'en emparer, et les directions variées qu'il lui imprime, exercent ancune influence directe sur cet organ." He afterwards remarks, "ces vaisseaux, (capillaries,) sont, *ut ita dicam*, le cœur des veines," and attributes the venous circulation chiefly to the impulsion given to the blood in the capillaries.

Adelon in his Physiologie de l'Homme, when treating on the function of the circulation, teaches this doctrine in the fullest manner. He observes, "il est difficile, en effect, de nier cet appel du sang dans les systèmes capillaires, en raison de leur excitation; on l'a observé directment dans les expériences microscopiques." And immediately after, he continues, "De là même, résulte que c'est réelement cette *action aspirante* des systèmes capillaires, qui règle la quantité de sang qui traverse les trois autres parties de l'appareil circulatoire." In what this action consists, Adelon does not pretend to determine, but he rejects precisely the theory announced by the author of the essay under consideration. "Du reste, cette *action d'aspiration* exercée par les systèmes capillaires, ne peut nullement être determinée; on l'a dite une succession de contractions et de *dilatations actives*, mais ce n'est là qu'une conjecture; cette action etant tout-à-fait moléculaire, on ne peut rien savoir d'elle, sinon que les systèmes capillaires ne sont pas passifs pour sa production, et qu'elle n'est ni physique ni chimique, mais organique et vitale."

These quotations are sufficient to show, others could be cited, that the perfect independence of the capillary circulation, and the active influence it exercises over the general circulation, are doctrines long since promulgated and generally entertained by the physiologists and pathologists of France.

We are rejoiced that Dr. Hodge has brought this subject before the American profession, and has so ably sustained it against the unphilosophical and crude science of the English physiologists, the worst in the world. The capillary circulation cannot too much engage the attention, and occupy the profound reflection of practitioners. No one can understand the pathological condition who has not mastered this fact of physiology; and on it reposes the employment of most of our therapeutic means.

The views of the writer on expansibility and the capillary circulation, are

presented in four propositions, under each of which is adduced the facts he supposes to countenance his doctrines. Much research and no inconsiderable ingenuity is displayed, in collecting and applying a great variety of observations in support of the different points of the argument. While many of these are apposite, we must confess others are equivocal, admit of other explanations equally plausible, and cannot therefore be relied on as positive evidence. In all controverted subjects, facts that equally admit of different explanations and may be cited by both parties, however numerous they may be, give but a feeble support, and should be sparingly used. A single fact that will admit but one explanation, is of more weight than a thousand that will bear various solutions.

Under the second proposition, which is intended to demonstrate expansibility as a vital property, a number of questionable circumstances are introduced and relied on, few of which will be admitted, and nearly all contested, as having the bearing attributed to them by the writer of the essay. It is not, for instance, shown that absorbent vessels have open or patulous orifices. Fohman on the contrary, expressly asserts, that in fishes he has been able to demonstrate they commence in closed extremities or cul-de-sacs. In like manner, no evidence can be adduced to prove that in seeds, and the radicles of vegetable roots, absorption is by open orifices. In the roots of plants, Dutrochet most positively assures us, that no such arrangement exists, but that absorption and capillary circulation are accomplished by vesicular corpuscules.

We cannot but think this part of his subject exhibits too little of the spirit of physiological reasoning. Expansion is considered in too mechanical a view. Simple expansion could produce none of the effects attributed to it—something more is requisite; and this the essential principle, without which expansion would be fruitless. The afflux of fluids, in many of the instances cited, cannot be attributed to the enlargement or expansion of vessels, but the cause that occasions the expansion, is that which determines the flow of the fluids. It is better, instead of deceiving ourselves by an inadequate explanation, to acknowledge with Adelon our ignorance of this mystery of nature, and be contented with a simple statement, that the capillaries are not passive in its production, and that the action is organic and vital.

The last proposition is an attempt to show that, "during inflammation, an increased quantity of blood flows through the affected part."

This proposition is not a necessary consequence of the preceding, and the proofs brought in support of it, are far from conclusive. They are all compatible with a contrary doctrine, and which may be sustained by direct and positive evidence.

In giving this statement of the leading principles of Dr. Hodge's essay, we have freely expressed some of the objections that arose in the mind on its perusal. We recommend it to the attention and examination of medical readers, who will find in it much valuable information, and useful materials for reflection. J.

—

Operation for a formidable Tumour in the Neck.—"The patient, Mr. ——, is a man of 60, rather weak in constitution.

"Tumour has been growing between one and two years. Externally, it extends from the lower jaw to the inferior part of the neck, on the left side; and from the trachea across the neck, under the mastoid muscle to the transverse processes of the cervical vertebræ. Is of an almost stony hardness at the upper part. In form somewhat flattened, as if compressed.

"On the inside of the mouth a tumour is seen on the left side of the fauces, extending half across this passage, and rendering the deglutition very difficult.

"A consultation being held of the physicians of the hospital, aided by other gentlemen, it was concluded that as the patient must expire without an operation, if, considering he might die in its performance, or soon after, he thought it best to have the operation done, it would be proper to do it.

"The patient having duly considered the dangers of his case, and having consulted his friends, was anxious to have an operation done as speedily as possible. It was accordingly performed by Dr. Warren as follows.

"The neck being shaved, and the patient, having taken sixty drops of laudanum half an hour before the operation, was placed in a common chair, the head inclined to the right side, and an assistant directed to support it sufficiently to prevent any contraction of the muscles of the neck.

"An incision was made from the ear to the clavicle, inclining forwards from the ear towards the larynx, so as to uncover the middle of the surface of the tumour. This part of it was then dissected and brought into view, so as to expose the more prominent portion, which was separated from the lower jaw and the ear above, from the larynx before; and the mastoid muscle was turned back from the upper portion of the tumour, care being taken to avoid the accessory nerve where it enters the muscle.

"About this period the patient fainted twice in succession, but by inclining the head downward, he was recovered.

"The next object was to disengage the tumour at its lowest part, and ascertain its relation to the great blood-vessels and nerves. In prosecuting this part of the operation, it soon appeared that the disease extended so low as to leave a small space between it and the clavicle. While cautiously attempting to raise the lower part of the tumour, and looking for the internal jugular vein, this vessel was found to be pushed forwards by the tumour, and bent from its course, and to be covered anteriorly by a thin layer of the tumour, which obscured its usual blue colour, and confused it with the surrounding parts.

"The deep dissection of the tumour was prosecuted at the superior part of the neck. The numerous large arteries from the external carotid being situated here, it was necessary to prevent the hæmorrhage from these vessels, by placing a ligature upon the carotid artery at the lower part of the neck. For this purpose the sternal attachment of the mastoid muscle was cut. Then by dissecting the sterno-hyoideus and dividing the omo-hyoideus, which was thin and wasted from passing through the tumour, the artery was exposed, its sheath opened and dissected, and a ligature of three threads passed around it and tied. The patient expressed no emotion at the ligature of the artery, nor did he appear inclined to faint again.

"Passing a ligature through the tumour it was drawn backwards, and thus the dissection was continued high and deep to the side of the pharynx. In doing this, a considerable nerve, apparently the glosso-pharyngeal, was unavoidably divided. The tumour being somewhat loosened, a cord was seen proceeding out of it towards the upper part of the neck, appearing to be a part of the tumour. This proved to be the par vagum nerve and the carotid artery. The entire extirpation of this part of the tumour was impracticable, except by a dissection, which the patient would not have supported. The tumour was therefore removed in separate portions:—first, the most considerable mass of it, afterwards the other portions, so as to leave a small part only attached to the vessels and nerves; this was in great part broken and detached by the fingers. In performing this part of the operation, it was perceived that when the tumour was so moved as to draw the par vagum, (which necessarily happened in a slight degree,) at that moment the patient had a sort of spasm or convulsion, extending from the neck into the thorax, and trunk of the body.

"In the dissection of the upper part of the tumour, the thyroid vein was necessarily cut off, and produced a bleeding which was troublesome while it lasted. This was the principal hæmorrhage. Except at the beginning of the operation, there was scarcely a show of arterial blood. The skin was brought together to allow such parts, as might be disposed, to unite, in order to lessen the extent of the wound.

"The first night he had some sleep. On the next day, pulse 120—no difficulty in swallowing, breathing, nor speaking. Second day; much the same. Third day; says he feels comfortable—speaks with ease—swallows better—has no dif-

ficulty in breathing, nor any other alarming symptoms—pulse 100. Took half an ounce of sulphate of magnesia, which was repeated in the afternoon.

"Fourth day. Wound dressed; has in a great measure healed—pulse 100—has a disposition for nourishment, and swallows well. From this time he recovered rapidly.

"The tumour on the inside of the throat inflamed soon after the operation, and had great appearance of sloughing away. But this appearance subsiding, in sixteen days from the first operation the actual cautery was applied. A piece of horn was so shaped as to receive and convey securely an iron across the mouth to the throat. This being introduced, a globe of iron, half an inch in diameter, with a handle attached to it, was heated red hot and carried to the tumour, and pressed forcibly into it. The substance appearing very hard, a second red hot iron was employed in the same manner.

"On that day and the next, the patient suffered considerably from this operation. By the fourth day he was as well as before it; and the slough having separated, he left the hospital within a week, and went home into the country.

"From some exposure, he got an inflammation of the throat, which for a time had an unpromising aspect; but from this he has now recovered, and is well enough to resume his common occupation.

"A surgeon who undertakes an operation on a deep-seated tumour, should be prepared to find great deviations from the natural state of parts; and he must not expect his knowledge of anatomy to serve as his sure and infallible guide in this new state of things. A deliberate observation of parts, as they present themselves, can alone conduct him safely along.

"The recovery of this patient shows what extraordinary wounds a weak, yet unirritable constitution can support. In this operation, which lasted an hour, including the faintings, the carotid artery was tied; the par vagum nerve and the internal jugular vein dissected, for a considerable extent; the accessory and sublingual nerves exposed; the glosso-pharyngeal and the descending branch of the sublingual, *(hypoglossal?)* or descendens noni, cut off; part of the pharynx and trachea uncovered; the mastoid muscle dissected for its whole length and divided; the omo-hyoid, sterno-hyoid and sterno-thyroid dissected, and the first divided; the digastric and internal pterygoid and other small muscles dissected; and the transverse processes of the cervical vertebræ in part exposed."—*Boston Medical and Surgical Journal, Vol. I. No. II.*

—

Injuries of the Head.—The first number of the Transylvania Journal of Medicine, and the Associate Sciences, contains a highly interesting paper by Professor DUDLEY, on this subject. The experience of Professor D. has induced him to depart from the commonly received principles by which surgeons are governed in regard to the use of the trephine. "In skilful hands," he says, "the operation beyond the atmosphere of large cities, is neither dangerous in its consequences, nor difficult in the execution."

It is well known that Mr. Cline cured two cases of epilepsy caused by injury of the head, by the use of the trephine, and Professor D. adduces as further evidence of the efficacy of the operation, three cases in which it was successfully performed by himself.

Case I. Mr. K. a carpenter, consulted Dr. D. in September, 1818, "on account of a severe pain in the superior and posterior part of the cranium which had afflicted him for nine months. A succession of tumours had at various periods appeared about the seat of the pain. Upon an examination, in place of tumours, two very sensible depressions were discovered on the surface of the scull, attended by extraordinary sensibility in the integuments of the parts. About Christmas all the symptoms became aggravated and severe epileptic convulsions ensued. His convulsions were so frequent and violent in the latter part of winter that it was apprehended he would speedily fall a victim to his disease." During the months of February, March, and the beginning of April,

he was constantly confined with a severe affection of his head, attended by violent epileptic fits every five or six days.

"The trephine was used on the 16th day of April, two circular pieces of bone being removed, corresponding with and including those portions which by previous examination seemed to be depressed. The pericranium was remarkably thickened and morbidly sensitive. The bone was porous, and admitted of large processes of this membrane, and of blood-vessels to pass directly to the dura mater. The bone removed by means of the trephine was immediately in the direction of the longitudinal sinus, while there was great difficulty in breaking up the connexions between it and the dura mater. After the operation was completed, I was astonished on turning my attention to the dura mater, to discover a copious secretion of fluid which separated that membrane from the surface of the brain more than half an inch; while that organ in place of giving to the finger a sense of pulsation, felt as hard and as unyielding as a board. The patient being dressed in the usual way, was put to bed and kept quiet till the fifth day, when from the establishment of free suppuration the bandages were removed. It was now ascertained on examination, that the fluid beneath the dura mater was absorbed. The brain had regained its proper level and pulsated with unusual vigour: no convulsion had occurred since the operation. The dressings being renewed, he was ordered a mercurial course of treatment with a view to correct the secretions and to promote the healthy action of the absorbents. At the expiration of three months he was perfectly restored to health, having experienced only two slight attacks of epilepsy during his recovery, while his head, which had for many months given him excessive pain, caused but little inconvenience after the operation. From an occasional intercourse with this patient for many months after all professional attendance and advice were suspended, I am prepared to pronounce on the cure as radical."

Case II. W. T. a young gentleman from South Carolina, æt. twenty-one, when five years of age "received a blow accidentally on the superior and middle portion of the left parietal bone. Being at school, he was able to go home on foot without giving any particular manifestations calculated to excite alarm. On the ninth day he became suddenly apoplectic, and paralysis of one side ensued. The paralytic affection gradually disappeared, so as to leave him in the enjoyment of his faculties, as well corporeal as intellectual, at the expiration of two months; but from that period he became the subject of severe pain in his head, and especially about the seat of the injury he had previously sustained. From this time his constitution became exceedingly delicate and excitable, with disinclination for exercise, and liability to faintness after the slightest exertions: finally about his fourteenth year, nine years after the reception of the injury, he became the subject of epileptic convulsions. These had ever since continued to recur at irregular intervals of two, three, or four weeks, varying with the occasional causes which for a time invited or retarded their appearance. He had been but a short time the subject of epilepsy, until a most manifest improvement in his constitution took place. His personal appearance and constitutional vigour being much changed for the better, his former excitable habit, with his liability to faint after every slight exertion, now left him. But these flattering symptoms were soon followed by a perceptible injury of his intellect, insomuch that it became useless to confine him longer to his studies in school.

"After receiving this history of the situation of the patient from the mother, upon turning to himself with a view to additional information, I observed a stammer in every attempt an enunciation; while his memory had become so entirely treacherous, that he could no longer recite with any degree of accuracy, an event which had transpired within two days, his recollection being good, however, in relation to circumstances of his childhood. For most particulars in relation to his daily history, even in reference to the operation of a dose of medicine, it was necessary to consult his mother.

"A cicatrix on the side of the scalp pointed out the seat of the original injury. Under all these discouraging circumstances, after a few days preparation, the operation was resorted to on the 10th of May, 1825, to relieve him of an injury, the consequences of which had been accumulating upon him for sixteen years. A small depression of bone appearing manifest, corresponding with the original site of the injury, indicated the point upon which to apply the trephine. The crown of the instrument was made to embrace the depressed bone, which, when removed, presented a process projecting from its inner surface about one inch in length, of the size of a small quill at its base, the extremity tipped with soft cartilage. This spiculum of bone had penetrated the dura mater, and communicated with a large preternatural sinus, from whence issued a stream of blood as thick as a man's little finger, which continued to flow from the instant the bone was removed, until from the quantity lost, it was judged proper to check it by means of pressure. The dura mater was diseased, presenting a dark blue appearance over a space nearly as large as the opening in the cranium made by the trephine; while the sinus beneath appeared to be, from an examination made by the little finger, more than an inch in depth, and of equal width. The disposition to hæmorrhage was checked in a few minutes by means of pressure with the thumb, and being now satisfied that the trephine was not further necessary, it was proposed to cleanse and dress the wound. Before the dressings were applied, an alarming convulsion came on, during the continuance of which, a stream of blood issued through the opening of the dura mater, that projected three or four feet. A second and third convulsion ensued, with like discharges of blood from the opening of the dura mater, before the patient could be placed in bed. For six or eight hours after the operation, he remained in an insensible state, and then his natural feelings and reason returned.

"It was now supposed, whatever might be the termination of the case, the cause originally productive of the disease was removed. From bloody water, the discharge from the wound changed in the course of twelve hours to a colourless serum, and for three days and nights in succession, it was so copious as to make it necessary to change towels, pillows, bolsters and sheets, two or three times during the day. Those young gentlemen who assisted in dressing and attending to the case, insisted that the entire amount of serum discharged, could not be less than two gallons. On the morning of the fourth day the dressings were dry, and in some few hours after, suppuration became manifest. The wound was now dressed with adhesive plaster, which was renewed daily for about thirty days, when it was healed.

"The patient had no convulsion after the day on which the operation was performed; a manifest improvement in his memory became perceptible in a few days to all around him. His stammer, which appeared to proceed from an indistinct recollection of things, very suddenly vanished, his eye which had been half closed, heavy, and inanimate, was now sprightly and intelligent. In ten days he left his room, and at the end of six weeks he returned home in the enjoyment of perfect health; travelling a distance of five hundred miles in the month of July, in ten or twelve days."

Case III. A young man, æt. twenty-three, when five years old "received a kick from a horse, which fractured and depressed a portion of the right parietal bone. The immediate symptoms were not particularly alarming, notwithstanding a wound also in the scalp, nor was there any extraordinary defect either in general health or constitutional development, until about the fifteenth year of his age, when, without any assignable cause, he had for the first time an epileptic convulsion.

"From that time he continued to be the subject of epilepsy every second, third, and sometimes fourth week, according as the exciting causes acted with more or less intensity. The continuance of epilepsy for eight years, had reduced his constitutional vigour, and rendered his system morbidly excitable. The condition of his mind was still more deplorable, his memory having undergone almost a total extinction. In the latter part of February, 1826, after

spending a few days in preparing the system, the operation was performed in the amphitheatre, in the presence of all the class.

"The external incision being made, the trephine was applied in such a manner as to cover the larger portion of the depressed bone. In two or three turns of the instrument, the cranium was penetrated in one point of the circle; and through this opening, which could have been closed with the small end of a surgeon's probe, transparent colourless serum flowed during the balance of the operation.

"The circular piece of bone being removed, the dura mater was found defective to the extent of a twelve-and-a-half cent piece of silver, which exposed a sinus reaching down to the petrous bone, near the base of the scull. A spinous process projected from the inner table of the bone about half an inch long, its base being of equal dimensions. A small portion of the spinous process was not included by the trephine; this was removed by means of a strong pair of forceps. The sinus in which the serum was collected, was large enough to receive a hen's egg. The patient had two light attacks of epilepsy on the second and third days after the operation; but on the fourth, suppuration was established, the dressings were renewed, and he began to give assurances of a successful issue by a more sprightly and animated countenance. Each successive dressing was accompanied by new evidences of intellectual and corporeal improvement; and at the end of the fourth week, the wound having cicatrised, the patient returned home in the enjoyment of perfect health."

In using the trephine for the cure of certain forms of epilepsy, Dr. D. very justly observes, it becomes a subject of particular interest to be prepared to designate those cases in which the operation is demanded with a view to cure, from others which, notwithstanding epilepsy supervenes upon morbid ossification pressing upon the brain, are yet beyond the reach of all surgical skill. The use of the trephine, he says, could not be justified, except in cases of evident depression of bone, or of a morbid condition of it produced by violence or other causes, leaving thereby but little doubt in regard to the place upon which to use the instruments as well as the practicability of removing the causes productive of morbid cerebral excitement.

It is well known that a difference of opinion exists between the surgeons of England and France, respecting the propriety of healing certain wounds by the first intention. In England and this country it is a general rule to attempt the union of wounds by the first intention; Dr. D. thinks, however, that it is yet to be decided, whether wounds of the scalp, accompanied by an injury done the parts beneath the skin, do not constitute an exception in practice. The common integument being more vascular, and enjoying in a higher degree the power of restoration than those parts which it protects, frequently heals, while the parts over which it has united are still labouring under the consequences of the injury inflicted. Even where no unpleasant consequences in regard to a translation of morbid excitement to the dura mater ensues, it not unfrequently happens, says Dr. D. that the pericranium and bone become diseased, thereby producing a train of symptoms always alarming, and too frequently fatal.

"Numerous cases," says he, "are fresh in my recollection, and they occur every season, where chronic inflammation of the pericranium, with all its threatening train of evils, follows the union of the integuments by the first intention, in a contused wound on the scalp."

Dr. D. relates an interesting case of fungus cerebri, in which he used dry sponge bound as closely on the fungus as the feelings of the patient would permit, and found it the most effectual mode of applying gentle and regularly increasing pressure. To prevent the vessels from penetrating the sponge, a piece of fine linen or muslin should be interposed between it and the brain; as the sponge absorbs the secretions of the part, the pressure is regularly and insensibly increased, and Dr. D. has in five days by this means cured the fungus cerebri, and produced a sinus below the dura mater equal in magnitude to the fungus, without exciting unpleasant symptoms.

Hydrocele.—Professor DUDLEY of Transylvania University has given some interesting observations on this disease in the second number of the Transylvania Journal of Medicine. After remarking that in this apparently simple disease, its Protean character has given origin to much erroneous speculation as to the nature of the complaint and the most advisable mode of treatment, he details the differences between hydrocele and those maladies liable to be mistaken for it in a clear and perspicuous manner. Dr. Dudley claims the discovery of the encysted form of hydrocele which has lately been noticed by English writers. The first case he met was in 1818, since which time he has seen four others. These patients were cured by an exsection of the sac; in these cases the other modes of treatment would have proved unavailing. Grounded on his success he proposes a plan of treatment which he says is applicable to every variety of cases, is less painful, and more certain and speedy in its result. This is by a free incision through the scrotum and tunica vaginalis, thus giving the operator an opportunity of examining the condition of the testes, &c. and of removing viscid fluids, sacs, hydatids, or sarcomatous tumours. Where the fluid is contained in a preternatural sac, this must be exsected; but when the tunica vaginalis furnishes the secretion, precautions must be taken to prevent a return of the complaint. By means of proper dressings it is necessary, whilst all the middle and superior parts of the incision are placed in contact, to keep the lower part open by the introduction of a small tent one or two inches within the cavity of the tunica vaginalis; where coagulable lymph has been thrown out around it, so as to exclude it from the cavity, the disease is apt to return, in such a state of things the tent must be forcibly taken away, and the lymph broken down with a probe. The general dressings should be light and simple.

"Operations," says Dr. D. "upon tumours of the neck and breast, and upon the scrotum, are particularly apt to be followed by hæmorrhage, some little time after the dressings are applied. Partial pressure and the presence of extraneous bodies in wounds, have a peculiar effect in exciting a hæmorrhagic tendency in wounded vessels. On one occasion after removing a tumour from behind the angle of the jaw, which was attached to the transverse processes of the second and third vertebræ, I was near losing my patient by ineffectual pressure, made with a view to check a hæmorrhage that continued obstinately and alarmingly until that measure was abandoned. Immediately after pressure was removed, and the parts were cleansed of coagulated blood, the vessels contracted and the bleeding ceased.

"I have often remarked this hæmorrhagic disposition after operations upon the scrotum. In almost all cases the bleeding will immediately cease upon the removal of all compression; and I have met with instances wherein it became necessary even to take away the tents used in operations for hydrocele, before the bleeding could be checked.

"This principle in reference to hæmorrhage, is looked upon as a very important one in almost all cases wherein the loss of blood is involved. While complete pressure is decisive in its effects upon a bleeding vessel, imperfect compression excites and aggravates the disposition to bleed."

Rutgers Medical College, New York.—At a special meeting of the Rutgers Medical Faculty of Geneva College, held on Friday, the 23d of May, 1828, the following resolutions were unanimously agreed to, and the registrar ordered to transmit a copy of the same to Professor Godman.

A communication from Professor John D. Godman, addressed to the President of the Faculty, and tendering to the same the resignation of Dr. Godman as Professor of Anatomy and Physiology, was read; whereupon, on motion it was Resolved, That the continuance of Dr. John D. Godman's ill health, which has caused him to resign his Professorship, is deeply regretted by this Faculty, not only as a severe loss to the high standing of our Institution, but more especially for the lively interest we take in his personal welfare, who had been so long endeared to us by his social virtues, no less than by his intellectual and professional endowments.

Resolved, that the resignation of Dr. John D. Godman be accepted, and that the registrar furnish him with a copy of these proceedings.

A true copy.

JOHN W. FRANCIS, M. D. *Registrar.*

Philadelphia Medical Society.—The annual oration was delivered by John Bell, M. D. The subject chosen by the orator was the influence of medicine on the moral, intellectual and political relations of society, and in illustrating this he has displayed considerable industry and research.

We are happy to announce that C. W. Hufeland, Professor of Medicine in the University of Berlin, &c. E. Osann, Professor of Medicine and Surgery in the Military Academy, and J. F. C. Hecker, Professor of the Practice of Medicine in the University of Berlin, have been elected honorary members of the Society.

A Treatise on the Diseases of Females. By William P. Dewees, M. D. &c. &c.—Messrs. Carey, Lea & Carey have just published a new edition of this work, with numerous additions and corrections.

Treatise on Physiology applied to Pathology. By F. J. V. Broussais. Translated by John Bell, M. D. and R. La Roche, M. D.—Messrs. Carey, Lea & Carey have just published a new edition of this valuable work. This edition is enriched with notes by the translators, a preface, and a copious index.

Carpenter's Chemical Warehouse.—We are pleased to announce that Mr. G. W. Carpenter, who is advantageously known to our readers by his papers on pharmaceutical subjects, has opened a Drug and Chemical Warehouse, at No. 301, Market street, Philadelphia. He has connected with his establishment a laboratory for the manufacture of some of the most important articles, such as quinine, piperine, denarcotized opium, denarcotized laudanum, and acidulous tincture and extract of denarcotized opium, &c. &c.; and as these articles are manufactured by himself, or under his immediate superintendence, their quality may be depended upon.

MEDICAL DEPARTMENT OF THE COLUMBIAN COLLEGE.

To complete the organization of the Medical Department of the Columbian College, a chair, denominated *The Institutes of Medicine and Medical Jurisprudence*, has been established.

Professor Randall having been appointed to the newly created chair, the vacancy occasioned by his resignation of the professorship of chemistry, has been filled by Thomas P. Jones, M. D. formerly professor of chemistry and natural philosophy in William and Mary College, and late of the Franklin Institute. By these arrangements, the scientific advantages of the students are greatly augmented, without any material increase of expense, the graduation fee being reduced from thirty-five to twenty dollars.

During the last course of lectures, the professors occupied their new Medical College, erected during the past summer, and the result of the winter's experience proves that the building is well situated to the purposes for which it was designed.

It is large and commodious, consisting of three elevated stories, with a roof peculiarly constructed for the admission of light into all the apartments appropriated to anatomical purposes.

On the ground floor is the lecture room, laboratory, &c. of the professor of chemistry.

The second story contains the rooms, public and private, of the professors of the theory and practice of medicine and of materia medica, and of the institutes of medicine and medical jurisprudence.

In the third is the anatomical theatre, together with rooms occupied by the professors of anatomy, surgery, and obstetrics.

The theatre is designed from the most approved plans, and is conveniently connected with the rooms situated in the superior part of the building, which are intended for the purposes of practical anatomy. In relation to this particular department of the school, the professors have pleasure in saying, that care has been taken to provide space, light, and security, together with every other specific convenience that may afford to the student facility in prosecuting to advantage this necessary part of his collegiate studies. Rooms have, also, been set apart for a medical library and a museum of anatomical preparations.

Since the commencement of the last session, the professors have laid the foundation of a library. Already medical works to a considerable amount have been collected, and provision has been made for its regular and speedy increase.

The fifth session of the institution will commence on the first Monday in November next, and continue to the last of February. During this period, lectures will be delivered daily, and full courses will be given on the various branches of medicine, by

THOMAS SEWALL, M. D. *Professor of Anatomy and Physiology.*
JAMES M. STAUGHTON, M. D. *Professor of Surgery.*
THOMAS HENDERSON, M. D. *Professor of the Theory and Practice of Medicine.*
N. W. WORTHINGTON, M. D. *Professor of Materia Medica.*
FREDERICK MAY, M. D. *Professor of Obstetrics.*
RICHARD RANDALL, M. D. *Professor of the Institutes of Medicine and Medical Jurisprudence.*
THOMAS P. JONES, M. D. *Professor of Chemistry.*

The ticket of each professor is fifteen dollars; and all persons who have attended two full courses, in this school, are entitled to attend succeeding courses free of expense.

The requisites for graduation are similar to those required in the most respectable institutions in the country. The candidate shall have studied three years under the direction of some regular physician. He shall have attended each professor two full courses, or he shall have attended one full course in this school, and one in some other respectable medical institution. He shall have entered his name with the dean as a candidate for graduation, and delivered to him an inaugural dissertation on some medical subject, thirty days before the close of the session.

The degrees are conferred under the authority of the charter of the Columbian College, incorporated by the Congress of the United States.

R. RANDALL, M. D. *Dean.*

NECROLOGY.

It becomes our mournful office to announce the death of one of our most distinguished collaborators, WRIGHT POST, M. D. The period at which this event took place is so recent that we have been able to obtain materials for the following brief notice only; we trust some one of his friends will give the public a biography of this eminent physician and surgeon.

Dr. Post was born in the city of New York, in 1765; he commenced the study of medicine under Dr. Richard Bailey, and continued with him until about the year 1784, when he went to Europe for the better prosecution of his studies; he selected the school of London, as affording the best opportunity of obtaining a knowledge of surgery, to which branch he intended particularly to devote himself. He returned to this country in the year 1787, and commenced the practice of physic and surgery. In the year 1791, the trustees of Columbia College

having determined to organize a medical faculty, selected Dr. Post to fill the chair of surgery. In May, 1792, he proceeded to Europe, for the purpose of purchasing an anatomical museum, and returned in 1793. Immediately upon his return, Dr. Bailey, from considerations of health, proposed to exchange the anatomical chair, which he then filled, for that of surgery; this arrangement was effected, and Dr. Post became professor of anatomy; the duties of this branch he continued to perform until the year 1813, when the medical faculty of Columbian College having formed an union with the college of physicians and surgeons, Dr. J. Augustine Smith was associated with him as professor of anatomy and surgery; this connexion continued for a short time, when Dr. Smith's resignation left him again in the sole possession of the anatomical chair. He continued lecturing on anatomy until the impaired state of his health compelled him to resign in 1825. In 1817 he proceeded a third time to Europe, but on this occasion in quest of health; he left New York in the spring, and returned much benefited in the fall. He was early appointed one of the surgeons of the New York hospital, which appointment he retained until his resignation, when he was chosen consulting surgeon, which he held until his death.

The character of Dr. Post was not distinguished by any of those striking traits of genius or talent, which at once fixes upon the professor the attention of the public; he was never solicitous for an extended reputation abroad, and even neglected the opportunities which he possessed of obtaining celebrity at home; in confirmation of this remark, we may mention the fact, that he was the first who operated successfully on the subclavian artery above the clavicle, and yet the case was not published until many years afterwards, and then at the request of the Physico-Medical Society of New York, who published it in their first volume. His knowledge of disease was derived more from observation in a very extended practice, than from the perusal of books, and hence his opinion in difficult and dangerous cases was eagerly sought for. His devotion to his business was incessant, his attention to the sick committed to his care unremitted, the consequence was that he enjoyed in an eminent degree the confidence and esteem of his patients. He was universely respected by the members of his profession; as consulting physician he was sought for by all; this confidence he justly merited, from the strictly honourable manner in which he behaved whenever his assistance was required. He never allowed any temptation of private interest induce him to swerve from what was due to the attending physician and patient. His health naturally delicate, was much impaired by the arduous duties of his extensive business; he was subject for many winters to inflammatory attacks of the chest, brought on by the exercise of his lungs in public speaking; the frequency and violence of these attacks, induced him at last to relinquish all business, and to retire in the country, to procure what benefit might be derived from a change of air. As a public lecturer, Dr. Post enjoyed the esteem and respect of all his hearers, he made no attempt to engage attention by oratorical display, but he attained the same end more certainly by an uninterrupted display of what was practically important. In the unavoidable collision of professional opinion, he set an example of mildness and forbearance, but too seldom witnessed in our profession; he never thought it necessary to impugn the principles of those with whom he differed in opinion; he repressed by his example the tendency to personal observations, which are too frequently indulged in, when animadverting on the opinions and practices of others. His religious principles were deeply rooted, and even during the period when most extensively and arduously engaged in professional business, he seldom omitted an attendance on the public exercises of the church. We might with safety recommend to the profession in general the imitation of his life.

J. M. P.

INDEX.

A.

Abercrombie on diseases of the brain and spinal cord, review of, 384.
Abortion, on blisters in, 299.
Absorbent system, disease of, 427.
Absorption, cutaneous, 418.
Accouchement after the death of the mother, 223.
Alabama, endemic diseases of, 26.
Amaurosis, 211, 446.
Amenorrhœa, 440.
Amputation of the neck of the uterus, 223.
——— of the thigh, 451.
——— of the thigh at the hip-joint, 221.
Amussat on the bilious apparatus, 193.
——— on the cerebro-spinal fluid, 193.
Aneurism, 136, 200, 202, 203, 215, 216, 451.
Angina maligna, 424, 441.
Anselmino on the sweat, 419.
Artemesia vulgaris, 431, 439.
Assafœtida, sulphur in, 471.
Axillary artery, ligature of, 460.

B.

Barbantini's case of hydrophobia, 206.
Barometer, on its application to the study of the circulation, 194.
Bartlett's account of the Hotel Dieu, 376.
Belladonna, poisoning with, 470.
Bell's cases of periodical blindness, 445.
Bernt on hydrophobia, 206.
Biett on ioduret of sulphur, 207.
Biliary apparatus, 193.
——— ducts, diseases of, 421.
Black vomit, 227.
Blindness, periodical, 445.
Blisters in threatening abortion, &c. 299.
Blood, 222, 414, 299.
Boston, quarantine regulations of, 483.
Breschet's cases of aneurism, 202.
Bronchotomy, 462.
Broussais physiology, 494.
Burns, treatment of, 439, 458.
Burwell's case of imperforate hymen, 481.

C.

Cæsarean operation, 223.
Calculus in the bladder, breaking down, 465.
——— in the uterus, 202.
Carbuncule polonico, 390.
Carbonic acid gas, properties of, 197.
Carbonate of soda in goitre, 438.
Carter on malformations of the heart, 200.
Carotid, ligature of, 212.
Carus's comparative anatomy, 398.
Carpenter's chemical warehouse, 494.
Castor oil, as a remedy for ring worm, 207.
Cerebro-spinal fluid, 193.
Central Medical Society of Georgia, 239.
Chapman on emetics in hæmorrhage, 120.
Charleston, S. C. epidemic of, 64.
Chest, congenital deformity of, 450.
Chevalier's case of aneurismal tumour, 203.
Children, diseases of, 175.
Chloride of lime in itch, 209.
Chorea, Artemesia vulgaris in, 431.
Circulation, 194.
Clavicle, exsection of, 482.
Cold air in pulmonary diseases, 229.
Colon, stricture of, 423.
Commencements, 236, 239.
Conium maculatum, 470.
Cornea, slough of, 447.
Cornitis, 488.
Cremor tartar in gravel, 458.
Croup, tobacco in, 480.
Cuming on peripneumonia, 424.
Cupping-glasses in poisoned wounds, 9, 307.
Cutaneous absorption, 418.

D.

Davy's experiments, 414.
Deafness cured by electricity, 444.
De Leon's case of scirrho-contracted rectum, 353.
Delirium, traumatic, 458.
Dengue, 477.
Dewees, treatise on the diseases of females, 494.
——— System of Midwifery, 235.
——— case of rheumatism, 473.
——— case of puerperal peritonitis, 475.
Diarrhœa, sulphate of copper in, 210.
Dickson on epidemic of Charleston, 64.
Dislocations, 136, 233, 453.
Diseases of the skin, 182.
Drake on cold air in pulmonary diseases, 229.
Drowning, 224, 434.
Dutrochet on the irritability of the sensitive plant, 415.
Dupuytren's operation for stricture of the lachrymal duct, 446.
——— on congenital lateral depression of the chest, 450.
——— treatment of ranula, 451.

Dudley on injuries of the head, 489.
——— on hydrocele, 493.
Dysentery, hydrochloruret of lime in, 208.
——— Mitchell on the treatment of, 323.

E.

Earle on paraplegia, 421.
Edwards's Surgical Anatomy, notice of, 179.
Electricity, deafness cured by, 444.
Elliotson on sulphat of copper in diarrhœa, 210.
——— on acupuncture in rheumatism, 210.
Emangard on angina maligna, 424.
Emetics in hæmorrhage, 120, 435.
Englehart on the iron in blood, 226.
Epilepsy, 440.
——— Wright on, 42.
——— Artemesia vulgaris in, 439.
——— ammoniacal sulphate of copper in, 434.
——— appearance of the brain in, 205.
Epiploon, disease of, 205.
Ergot, 207.
Erysipelas, 439.
Escharotic, 206.
Ether, 231.
Euphorbia lathyris, oil of, 431.
Expansibility, Hodge on, 484.
Extra-uterine fœtation, 114, 223.

F.

Fahnestock on the myrtle-wax, 313.
Femur, fracture of, 223.
Ferrara's topographie medicale, 192.
Fever, hydrochloruret of lime in, 208.
Folchi's analysis of the polygala senega, 222.
Foramen ovale, open, cases of, 412. 421.
Foreign substances in the body, 472.
Forceps, Dr. Physick's, 116.
Fracture of the thigh bone with osseous union, 202.
——— new mode of dressing, 216.
——— of the trochanter major, 452.
——— of the femur, 452, 453.
Francis's cases of ichthyosis, 257.
Fungoid tumour, extirpation of, 218.

G.

Gastrocnemii muscles, absence of, 193.
Gastro-meningeal irritation, 229.
Generation, organs of, 229, 412.
Gibson's case of axillary aneurism, 136.
——— Operative Surgery, 235.
Glands, iodine in enlargements of, 208.
Godman on tobacco in croup, 480.
Gout, iodine in, 440.
Goitre, carbonate of soda in, 438.
Gonorrhœa cured by antiphlogistics, 208.
Gravel, cremor tartar in, 439.
Griffith's case of salivation, 233.
Growth, premature, 198.
Guthrie on strumous corneitis and iritis, 448.

H.

Hare's process for nitric ether, 231.
——— on oil of wine, 233.
Head, injury of, 62, 220, 489.
Heart, disease of, 117.
——— malformation of, 200.
Heat, evolution of, during the coagulation of the blood, 414.
Heine on the treatment of burns, 439.
Heiskell's case of extra uterine fœtation, 114.
Helbich, de carbunculo Polonico, 390.
Hemiplegia, 435.
Hemlock in itch, 439.
Hæmorrhage, emetics in, 120.
——— from the bladder, 414.
——— from the lungs, 414.
Henke on the diseases of children, 175.
Heustis on endemics of Alabama, 26.
Hodge on expansibility, 485.
Hoffbauer's medecine legale, 177.
Hotel Dieu, account of, 376.
Humerus, excision of the head of, 215.
Hutin's manual of physiologie, 409.
——— cases of gonorrhœa, 208.
Hydrocloruret of lime in dysentery, 208.
——— in fever, 208.
Hydrophobia, 206.
Hydrorachitis, 221.
Hydrocephalus, 441, 443.
Hydrocyanic acid, 431, 434.
Hydrosulphuric acid, 433.
Hydatids of the liver, 457.
Hymen, imperforate, 485.

I.

Ichthiosis, cases of, 257.
Ioduret of sulphur, 207.
Intemperance, 291.
Intermittent fever, 436.
Iodine in gout, 444.
——— in enlarged uterus, 465.
Ipecacuanha in menorrhagia, 435.
Iritis, 448.
Iron in the blood, 226.
Irritability of the sensitive plant, 415.
Itch, chloride of lime in, 209.

J.

Jackson on safe delivery of the placenta, 77.
——— on transfusion, 101.
——— on blisters in threatening abortion, &c. 299.
——— on prussiate of iron in intermittent fever, 335.
———'s case of gastro-meningeal irritation, 229.
Jaundice, 204.

K.

Kain on intemperance, 291.
——'s case of premature discharge of liquor amnii, 481.
Kidnies, extirpation of, 420.
King's case of urinary concretion, 212.

L.

Labarraque's disinfecting liquid, 471.

Lachrymal duct, stricture of, 446.
Larrey's new mode of dressing fractures, 216.
Larvæ hatched in the body, 228.
Larynx, re-establishment of the canal of, 214.
Lawrence on ligatures in the treatment of nævi materni, 221.
Lehman's meteorological observations, 345.
——— on dengue, 477.
Leucorrhœa, blisters in, 303, 444.
Leveille on ergot, 207.
Levret's case of poisoning, 226.
Life, mean duration of, 228.
Ligature in nævi materni, 220.
——— in poisoned wounds, 307.
Lisfranc on the use of the stethoscope, 186.
———'s case of ligature of the carotid, 212.
———'s cases of amputation of the neck of the uterus, 219.
Liston's case of re-establishment of the canal of the larynx, 214.
Liquor amnii, premature discharge of, 481.
Lithotomy, 455.
Liver, hydatids of, 457.
Luroth on softening of the uterus, 425.
Lyons on yellow fever, 208.
——— on black vomit, 227.

M.

Maculloch on malaria, 402.
Malformations, 193, 200, 412, 413.
Mammæ, woman with three, 412.
Mayer on ligature of the eighth pair of nerves, 196.
Medical department of Columbia College, 494.
Medecine legale, 177.
Medullary sarcoma, 465.
Mercury found in the body, 227.
Menorrhagia, emetics in, 435.
——————— tannin in, 437.
Milky urine, cases of, 295.
Mills on treatment of hydrocephalus, 443, 444.
Mitchell on chronic dysentery, 323.
———'s instrument for applying ligatures, 234, 343.
Mott's exsection of the clavicle, 482.
Myrtle-wax in dysentery, 313.

N.

Nasal polypi, 218.
Nævi materni, 220, 460.
Necrology, 239, 495.
Neck, tumour of, 424.
Nerves, cause of death after the ligature of the eighth pair, 196.
Nervous tissue, regeneration of, 195.
Neuralgia, 234.
New York Medical Society's Transactions, 234.
Nitric acid, poisoning by, 226.
Nux vomica in hemiplegia, 435.

O.

Obstruction of the bowels, 208.
Opium, new preparation of, 432.
——— death caused by, 469.
Ophthalmia, pustular, 447.
——————— porriginous, 447.
Orfila on the signs of drowning, 224.
Osann on the medicinal springs of Prussia, 397
Osborne on emetics in menorrhagia, 435.
Ossification of the tunica vaginalis testis, 421.

P.

Paletta's cases of congenital absence of the gastrocnemii muscles, 193.
Paraplegia, Earle on, 421.
Pennock on cupping-glasses in poisoned wounds, 9.
Perineum, laceration of, 466.
Peripneumonia, 424, 432.
Peritonitis, 475.
Phagedenic ulceration, 219.
Philadelphia Medical Society, 241, 493.
Physick's forceps, 223.
Phthisis pulmonalis, 287, 426, 441.
Placenta, 77, 223.
Pneumothorax, 427.
Poisoned wounds, 9, 307.
Poisoning, 168, 226, 470.
Polygala senega, analysis of, 228.
Post, orbituary notice of, 495.
Prevost on regeneration of nervous tissue, 195.
Prussiate of iron in intermittent fever, 335.
Primus on safronised tincture of opium for the cure of nasal polypi, 218.
Psora, 439.
Pulsating tumours of the scalp, 461.

Q.

Quarantine regulations of Boston, 483.

R.

Radix cainæ, 431.
Rainy on fistula lachrymalis, 261.
———'s case of suffocation, 224.
Ranula, 451.
Rayer, traite de maladies de la peau, 182.
Rectum, scirrhus, 330.
Respiration, 194.
———————, difficult, 434.
Rheumatism, case of, 473.
———————, acupuncture in, 210.
Richond Des Brus, de la non existence de virus venerien, 151.
Ring worm, 207.
Rodrigue on ligatures and cupping-glasses in poisoned wounds, 307.
Rogers's case of injury of the head, 229.
Rose on inflammation of the testicle, 427.
Rutgers Medical College, 493.
Ryan on hydrocyanic acid in difficult respiration, 431.

S.

Sacchi on the bite of the viper, 209.
Saissy, essai sur les maladies de l'oreille interne, 411.
Salivation produced by tartar emetic, 233.
Scirrhus rectum, 330.
Scott on diseases of the joints, 407.
Scrotal tumour, 110.
Sewall's cases of injury of the head, 62.

Shaw on spinal disease, 400.
Syms's case of tumour in the neck, 424.
Small-pox, report on, 241.
Spence's case of pulmonary consumption, 287.
Spine, diseases of, 424.
Spleen, structure and function of, 413.
Statistics, 228.
Stedman's case of milky urine, 295.
Stokes on phthisis pulmonalis, 426.
—— on pneumothorax, 427.
Stricture of the lachrymal duct, 446.
Strumous corneitis and iritis, 448.
Stethoscope, 186, 467.
Sulphate of quinine, 436, 471.
Sulphur in assafœtida, 471.
Suffocation, 224.
Superfœtation, 421.

T.

Tannin in menorrhagia, 437.
Testicle, inflammation of, 427.
Thatcher's American Medical Biography, 399.
Thigh bone, fracture of, 202.
—— amputation of, at the hip-joint, 221.
Tobacco in croup, 480.
Tracheotomy, 213, 456.
Transfusion, 77.
Trochanter major, fracture of, 452.
Tumour in the neck, 487.
Tunica vaginalis testis, ossification of, 421.

U.

Ulcers, 463.
Ununited fractures, 270.
Urinary concretion, 212.
Uterus, calculus in, 202.
——, softening of, 425.
——, enlargement of, 465.
——, double, 466.

V.

Vaccine disease, origin of, 472.
Venereal diseases, treatment of, 444.
Vertebræ, dislocation of, 453.
Violation, presumed, of a child, 468.
Viper, bite of, 209.
Vision, defect of, 449.

W.

Walton's case of disease of the heart, 117.
Warren's case of dislocation of the humerus with fracture of the neck of the bone, 233.
Well's case of anomalous tumour, 110.
Western Medical and Physical Journal, 235.
White swelling, 407, 463.
—— on ligature in nævi materni, 222.
Wine, oil of, 233.
Wright on epilepsy, 42.

Y.

Yellow fever, 208.

THE END.